5.0 Environmental Impact Analysis

The following analyses provide information relative to 18 environmental topics as they pertain to the CPU. Each issue section is formatted to summarize the existing conditions, list the criteria for the determination of significance, analyze any potential impacts, list any required mitigation measures, and summarize the level of significance after mitigation. The City would require that the mitigation measures identified in this PEIR be implemented by subsequent future projects in accordance with the CPU, except in the following cases:

- The mitigation measure is not applicable to the project at hand; or
- Either the project proponent offers alternative mitigation that reduces the significant impact to a similar level as would be achieved by the mitigation identified in the PEIR; or
- The project proponent presents substantial evidence that the required mitigation measure is infeasible and that there is no feasible mitigation measure or alternative requiring preparation of a supplement or subsequent EIR. In this case, the Lead Agency must balance the benefits of the proposed project against the unavoidable significant environmental impacts to determine whether the unmitigated significant impacts are acceptable in view of specific overriding economic, social or other consideration (CEQA Guidelines Section 15093).

Topics subject to detailed analysis include those that were identified by the City of San Diego as having the potential to cause significant environmental impacts, and issues which were identified in the initial study and in response to the NOP and scoping meeting as having potentially significant impacts.

The 18 topics addressed in Chapter 5.0 are the following:

- Land Use
- Visual Effects/Neighborhood Character
- Air Quality/Odor
- Biological Resources
- Historical Resources
- Human Health/Public Safety/Hazardous Materials
- Hydrology/Water Quality
- Geology/Soils
- Energy Conservation
- Noise
- Paleontological Resources
- Transportation/Circulation
- Public Services
- Utilities
- Water Supply
- Population and Housing
- Agricultural and Mineral Resources
- Greenhouse Gas Emissions

THIS PAGE IS INTENTIONALLY BLANK.

5.1 Land Use

5.1.1 Existing Conditions

This section describes existing land uses in the CPU area and surrounding area, as well as existing relevant land use policies and regulations.

5.1.1.1 Existing Land Uses

a. On-site Land Uses

Existing land uses within the approximately 9,300-acre CPU area are shown in Figure 5.1-1, and acreages are provided in Table 5.1-1 below.

TABLE 5.1-1
CPU AREA - YEAR 2012 EXISTING LAND USE DISTRIBUTION

Land Use Categories	Acres[1]	% of Community
Residential		
Multi-Family (1,468 dwelling units)[2]	94	1.0%
Single-Family Detached (2,745 dwelling units)[2]	372	3.99%
Spaced Rural Residential	62	0.66%
Total Residential (4,213 dwelling units)[2]	528	5.7%
Commercial and Office		
Commercial and Office	116	1.24%
Shopping Centers	58	0.63%
Total Commercial (2.653 million square feet)	174	1.87%
Public Facilities, Institutions and Utilities		
Education	89	0.95%
Institutions	69	0.74%
Transportation, Communications, Utilities (includes I-905, completed)	1,898	20.4%
Total Public Facilities, Institutions and Utilities	2,056	22.1%
Agriculture		
Extensive Agriculture	161.5	1.73%
Intensive Agriculture	88	0.94%
Total Agriculture	249.5	2.68%
Industrial		
Heavy Industrial	17	0.18%
Light Industrial	977	10.5%
Total Industrial (33.323 million square feet)	994	12.7%
Parks and Recreation		
Open Space	2,580	27.7%
Recreation	98	1.05%
Total Parks and Recreation	2,678	28.8%
Other		
ROW (local)	586	6.3%
Undeveloped	2,036	21.8%
Total Other	2,622	28.1%
GRAND TOTAL	9,301[3]	100.00%

[1]SANDAG, 2012c Land Use, as updated per City of San Diego July 2013.
[2]SANDAG 2012b.
[3]Boundaries within different source data sets may have slight variations, thus resulting in an acreage discrepancy.

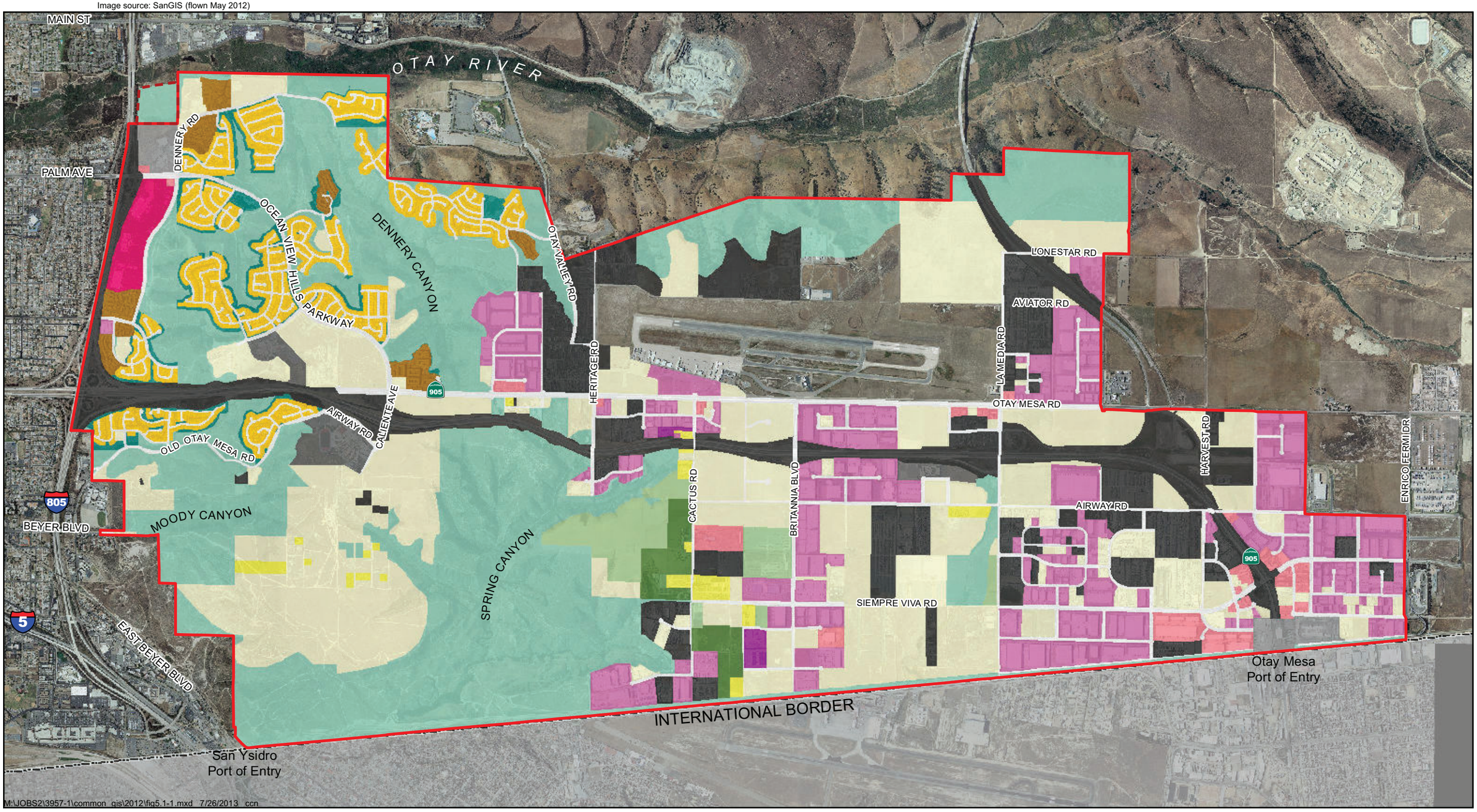
As shown in Figure 5.1-1 and in Table 5.1-1, open space comprises the largest existing land use (coverage) at approximately 2,580 acres, or slightly less than one-third of the total CPU area. These areas include the existing City MHPA-designated lands composed of Dennery, Moody, and Spring Canyons in the northwest and southwest, as well as the canyons north of Brown Field feeding into the Otay River Valley. The CPU area also includes approximately 98 acres of developed parkland and recreational uses, concentrated around residential areas in the northwest portion of the CPU area, and includes the five-acre Ocean View Hills Neighborhood Park, the six-acre Vista Pacifica Neighborhood Park, and the five-acre Ocean View Hills School Joint Use facilities.

The second largest existing land coverage within the CPU area is undeveloped land, occupying nearly one-third of the total CPU area, or 2,036 acres. As shown in Figure 5.1-1, existing undeveloped lands, which have designated land uses under the adopted community plan, occur between the open space canyons of the west and throughout the industrial and agricultural central and eastern portions of the CPU area.

Existing industrial uses, ranging from industrial parks, general light industry and warehousing to extractive uses (concrete batch plant and processing of construction materials), comprise the next largest CPU area land use, occupying 1,184 acres. Of this amount, roughly 977 acres is developed in light industrial uses. Industrial uses are distributed throughout the central and eastern portions of the CPU area, primarily south of Otay Mesa Road and east of Heritage Road. Auto wrecking and dismantling facilities are concentrated in the area immediately west of Brown Field.

Public Facilities and Utilities comprise approximately 2,056 acres within the CPU area and include Brown Field, a general aviation airport owned by the City of San Diego occupying the central 734 acres of the CPU area. The airport's most notable feature is its 8,000-foot-long and 200-foot-wide runway which can accommodate most aircraft. Except for the period 1947-1951, the airport was used exclusively for military purposes until 1962. Since then, Brown Field has served as a general aviation airport and port-of-entry for private aircraft coming into the United States through Mexico, and is still used by military and law enforcement agencies. Other public facilities include institutional and educational uses, such as the new 53-acre San Ysidro High School, the 20-acre Ocean View Hills Elementary School, and a Kaiser Permanente medical campus.

Image source: SanGIS (flown May 2012)



Otay Mesa Community Plan Boundary
Not A Part

Current Land Use (2012)

RESIDENTIAL
- Spaced Rural Residential
- Single Family Residential
- Multi-Family Residential

COMMERCIAL AND OFFICE
- Shopping Centers
- Commercial and Office

INDUSTRIAL
- Heavy Industrial
- Light Industrial

PUBLIC FACILITIES AND UTILITIES
- Transportation, Communications, Utilities
- Education
- Institutions

PARKS AND RECREATION
- Recreation
- Open Space Parks

AGRICULTURE
- Intensive Agriculture
- Extensive Agriculture

UNDEVELOPED
- Undeveloped
- Road & Railroad Rights of Way

0 Feet 2,500

FIGURE 5.1-1
Existing Land Use

THIS PAGE IS INTENTIONALLY BLANK.

Residential uses, ranging from scattered rural residences, single-family subdivisions, and multi-family units, currently occupy approximately 528 acres or 5.7 percent of the CPU area. Existing single- and multi-family units occur in the northwest corner of the CPU area, north of Old Otay Mesa Road. These comprise the newer residential communities of Ocean View Hills, Denney Ranch, and Hidden Trails, among others, built since 1998. Existing older, rural residences are dispersed throughout the south-central portion of the CPU area, south of Otay Mesa Road between Cactus and La Media Roads. In 2000, there were 1,740 people living in 481 housing units; by 2012 there were 15,323people living in 4,213housing units in the CPU area (SANDAG 2012b).

Approximately 65 percent of these units consisted of single-family homes and 35 percent consisted of multi-family units.

Approximately 249 acres of agricultural land, primarily field and row crops, cover roughly three percent of the CPU area, and is concentrated in the central area south of Otay Mesa Road. Some intensive agricultural uses such as dairies, chicken ranches, and nurseries also occur in this area. The area between Moody and Spring Canyons south of Otay Mesa Road was historically in agricultural production, but has been fallow in recent years.

Existing commercial uses (general commercial, office and retail) occupy approximately two percent of the CPU area at 174 acres. They are located primarily along SR-905 just north of the Otay Mesa POE and at the major intersections along Otay Mesa Road, including the intersections of Otay Mesa Road and Cactus, Britannia, and La Media Roads. These facilities generally consist of fueling stations and eating establishments to serve the local industrial employment population, including truck drivers. A shopping center also exists in the northwest corner of the CPU area, west of Dennery Road, south of Palm Avenue, and east of I-805. Also located within the CPU area is an existing health care facility in the far northwest corner.

The Otay Mesa POE is located in the far southeast portion of the CPU area, where SR-905/SR-125 terminates at the border with Mexico. The Otay Mesa POE, the largest commercial land port along the California-Mexico border, handles the third highest volume of trucks (at 1.4 million truck crossings in 2006) and is the 25th busiest port in the U.S. The Otay Mesa POE handles commercial truck inspections and serves autos and pedestrians as well.

The remainder of the CPU acreage is comprised of existing City right-of-way – approximately 586 acres.

b. Surrounding Land Uses

The undeveloped Otay River Valley is immediately north of the CPU area. The Otay River originates at the Lower Otay Reservoir approximately three miles northeast of the

CPU area. The reservoir is owned by the City of San Diego and is used for storing Colorado River water. The Otay River flows approximately 11 miles west from the reservoir into San Diego Bay, through the Cities of San Diego and Chula Vista. The Otay River Valley is part of the OVRP system and is designated for natural open space and limited recreational use. The portions of Dennery Canyon that transect the CPU area in the northwest corner are included in the regional park, as shown in Figure 2-3. The OVRP is managed through a Joint Exercise of Powers Agreement (JEPA) comprised of City of San Diego, Chula Vista, and County of San Diego residents and stakeholders (see Section 5.1.1.2.b). Further north of the river valley is the urbanized area of the City of Chula Vista.

Unincorporated county land lies east of the CPU area, and is largely undeveloped with dispersed industrial uses, including distribution, warehousing, and agriculture. This area is part of the County's East Otay Mesa Specific Plan area and is planned as a major employment hub and as an area for heavy industrial uses.

The City of Tijuana is located adjacent to the CPU area, south of the U.S.-Mexico border. Tijuana is an industrial community with a population of over one million and includes major manufacturing centers. The General Abelardo L. Rodríguez International Airportin Tijuana is directly south of the central CPU area.

The community of San Ysidro is west of the CPU area, south of SR-905 within the City of San Diego. A dominant feature in the San Ysidro community is the San Ysidro POE, which is currently the busiest in the western hemisphere and is approximately one-quarter mile west of the southeastern edge of the CPU boundary at the southern terminus of I-805. It is the region's primary cross-border gateway for auto and pedestrian traffic in both directions. Along the shared boundary between the San Ysidro and Otay Mesa Community Plan areas, existing land uses consist of schools, parks, and residences. The Otay Mesa-Nestor community is west of the CPU area north of SR-905. The portion of this community adjacent to the CPU area, between I-805 and I-5, is primarily residential.

5.1.1.2 Relevant Plans, Policies, and Regulations

Development is guided by the City's General Plan, and more specifically by the adopted Otay Mesa Community Plan. In addition, various other local, regional, and state plans, programs, and regulations are utilized to evaluate development of land within the City of San Diego (Table 5.1-2). A discussion of the consistency of the CPU with all relevant plans is discussed below in Section 5.1.3, Impact Analysis.

TABLE 5.1-2
APPLICABLE DOCUMENTS

City of San Diego • City of San Diego General Plan • Otay Mesa Community Plan (1981) • Zoning Ordinance (City of San Diego Land Development Code) • Otay Mesa Development District (overlay district of the Land Development Code) • Transit-Oriented Development Design Guidelines • Environmentally Sensitive Lands Regulations • Historical Resources Regulations • Multiple Species Conservation Program (MSCP) Subarea Plan • Airport Environs Overlay Zone • Brown Field Airport Land Use Compatibility Plan • Otay Mesa Precise Plans, including California Terraces, Dennery Ranch, Hidden Trails, Riviera del Sol, Otay International Center, Santee Investments, Remington Hills, and Robinhood Ridge*
Regional Plans • SANDAG Regional Comprehensive Plan, including Smart Growth Concept Map • SANDAG Regional Transportation Plan (2050) • Metropolitan Transit Service Transit Plan • San Diego Urban Water Management Plan, 2010 • Regional Air Quality Strategies

*See Figure 2-5 for location.

a. City of San Diego General Plan

A comprehensive update of the City's General Plan (March 10, 2008) is based on a new planning strategy for the City developed in the 2002 Strategic Framework Element. The Strategic Framework describes the role and purpose of the General Plan, outlines the City of Villages strategy, presents ten Guiding Principles that helped to shape the General Plan, summarizes the plan's elements, and discusses how implementation would occur.

Under the City of Villages strategy, the General Plan aims to direct new development away from natural undeveloped lands into already urbanized areas and/or areas with conditions allowing the integration of housing, employment, civic, and transit uses. It is a development strategy that mirrors regional planning and smart growth principles intended to preserve remaining open space and natural habitat and focus development in areas with available public infrastructure.

The General Plan includes ten elements that are intended to provide guidance for future development. These are listed here and discussed in more detail below: (1) Land Use and Community Planning Element; (2) Mobility Element; (3) Urban Design Element; (4) Economic Prosperity Element; (5) Public Facilities, Services, and Safety Element;

(6) Recreation Element; (7) Conservation Element; (8) Noise Element; (9) Historic Preservation Element; and (10) Housing Element. The Housing Element was last updated in 2013 and is provided under separate cover due to the need for more frequent updates.

Land Use Element

The Land Use Element provides overarching policies to integrate the City of Villages strategy and guide the provision of public facilities while accommodating planned growth. Policies within the Land Use Element in combination with other elements also protect coastal resources and ensure consistency with zoning regulations (i.e., Land Development Code).

The Land Use Element of the General Plan is largely seen as the structure and framework for developing community plans. When appropriate, policies call for community plans to further identify appropriate land uses to meet the goals set by the General Plan and City of Villages strategy. The policies also indicate that mixed-use areas, villages, and community-specific policies are developed with public input and involvement.

The Land Use Element contains five goals related to community planning. These are to provide:

- Community plans that are clearly established as essential components of the General Plan to provide focus upon community-specific issues.
- Community plans that are structurally consistent yet diverse in their presentation and refinement of city-wide policies to address specific community goals.
- Community plans that maintain or increase planned density of residential land uses in appropriate locations.
- Community plan updates that are accompanied by updated PFFPs.
- Community plans that are kept consistent with the future vision of the General Plan through comprehensive updates or amendments.

Community plans are important because they contain specific policies that protect community character. Future public and private development proposals would be evaluated for consistency with policies in the community plans. The specific policies in the Land Use Element that apply to the development of all community plans throughout the City are included in Table 5.1-3.

TABLE 5.1-3
LAND USE ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
LU-C.1	Establish each community plan as an essential and integral component of the City's General Plan with clear implementation recommendations and links to General Plan goals and policies. a. Develop community plan policies that implement citywide goals and address community or neighborhood-specific issues; such policies may be more detailed or restrictive than the General Plan as needed (see also LU-C.1.c. and LU-C.2.). b. Rely on community plans for site-specific land use and density designations and recommendations. c. Maintain consistency between community plans and the General Plan, as together they represent the City's comprehensive plan. In the event of an inconsistency between the General Plan and a community plan, action must be taken to either: (1) amend the community plan, or (2) amend the General Plan in a manner that is consistent with the General Plan's Guiding Principles.
LU-C.2	Prepare community plans to address aspects of development that are specific to the community, including: distribution and arrangement of land uses (both public and private); the local street and transit network; location, prioritization, and the provision of public facilities; community and site-specific urban design guidelines; urban design guidelines addressing the public realm; community and site-specific recommendations to preserve and enhance natural and cultural resources; and coastal resource policies (when within the Coastal Zone). a. Apply land use designations at the parcel level to guide development within a community. 1. Include a variety of residential densities, including mixed use, to increase the amount of housing types and sizes and provide affordable housing opportunities. 2. Designate open space and evaluate publicly-owned land for future dedication and privately-owned lands for acquisition or protection through easements. 3. Evaluate employment land and designate according to its role in the community and in the region. 4. Designate land uses with careful consideration to hazard areas including areas affected by flooding and seismic risk as identified by Figure CE-5 Flood Hazard Areas and Figure PF-9 Geo-technical and Relative Risk Areas. b. Draft each community plan with achievable goals, and avoid creating a plan that is a "wish list" or a vague view of the future. c. Provide plan policies and land use maps that are detailed enough to provide the foundation for fair and predictable land use planning. d. Provide detailed, site-specific recommendations for village sites. e. Recommend appropriate implementation mechanisms to efficiently implement General Plan and community plan recommendations. f. Establish a mobility network to effectively move workers and residents. g. Update the applicable public facilities financing plan to assure that public facility demands are adjusted to account for changes in future land use and for updated costs associated with new public facilities.

TABLE 5.1-3
LAND USE ELEMENT POLICIES RELATED TO COMMUNITY PLANS
(continued)

Policy	Description
LU-C.3	Maintain or increase the City's supply of land designated for various residential densities as community plans are prepared, updated, or amended.
LU-C.4	Ensure efficient use of remaining land available for residential development and redevelopment by requiring that new development meet the density minimums of applicable plan designations.
LU-C.5	Draft, update, and adopt community plans with a schedule that ensures that a community's land use policies are up-to-date and relevant, and that implementation can be achieved. a. Utilize the recognized community planning group meeting as the primary vehicle to ensure public participation. b. Include all community residents, property owners, business owners, civic groups, agencies, and City departments who wish to participate in both land use and public facilities planning and implementing the community vision. c. Concurrently update plans of contiguous planning areas in order to comprehensively address common opportunities such as open space systems or the provision of public facilities and common constraints such as traffic congestion.
LU-C.6	Review existing and apply new zoning at the time of a community plan update to assure that revised land use designations or newly-applicable policies can be implemented through appropriate zones and development regulations (see also LU Section F).

SOURCE: City of San Diego General Plan Land Use and Community Planning Element 2008.

Village Propensity. The Village Propensity Map in the Land Use Element of the General Plan (see General Plan Figure LU-1) illustrates existing areas that already exhibit village characteristics and areas that may have a propensity to develop as village areas. General Plan Figure LU-1 indicates that limited areas in the western portion of the CPU possess a low to moderate potential for village development, as described in the General Plan. Most of the CPU area, due to the high concentration of industrial uses, has very low potential for village development. Factors considered in locating village sites and ranking village propensity include community plan-identified capacity for growth; existing public facilities or an identified funding source for facilities; and existing or an identified funding source for transit service, community character, and environmental constraints (City of San Diego 2008a).

Village propensity also takes into consideration the location of parks, fire stations, and transit routes.

Environmental Protection/Environmental Justice. The General Plan Land Use Element provides direction for preparation of community plans and areas of zoning and policy consistency, plan amendment processes, coastal planning, balanced communities, equitable development, and environmental justice. The EPA defines Environmental Justice as fair treatment and meaningful involvement of all peoples,

regardless of race, color, national origin, or income, with respect to development, implementation, and enforcement of environmental laws, regulations, and policies. The City of Villages strategy and emphasis on transit system improvements, transit-oriented development, and the citywide prioritization and provision of public facilities in underserved neighborhoods is consistent with environmental justice goals.

Specific policies for environmental justice from the General Plan Land Use Element as they relate to environmental protection are presented in Table 5.1-4.

TABLE 5.1-4
LAND USE ELEMENT POLICIES RELATED TO ENVIRONMENTAL PROTECTION

Policy	Description
LU-I.12	Ensure environmental protection that does not unfairly burden or omit any one geographic or socioeconomic sector of the City.
LU-1.13	Eliminate disproportionate environmental burdens and pollution experienced by historically disadvantaged communities through adherence to the environmental justice policies in Section I and the following: a. Apply zoning designations that separate industrial and sensitive receptor uses as presented on LU Table 4. b. Preserve prime industrial land for the relocation of industrial uses out of residential areas (see also Economic Prosperity Element, Section A). c. Promote environmental education including principles and issues of environmental justice (see also Conservation Element, Section N). d. Use sustainable development practices (see also Conservation Element, Section A).
LU-I.14	As part of community plan updates or amendments that involve land use or intensity changes, evaluate public health risks associated with identified sources of hazardous substances and toxic air emissions (see also Conservation Element, Section F). Create adequate distance separation, based on documents such as those recommended by the California Air Resources Board and site specific analysis, between sensitive receptor land use designations and potential identified sources of hazardous substances such as freeways, industrial operations or areas such as warehouses, train depots, port facilities, etc.
LU-I.15	Plan for the equal distribution of potentially hazardous and/or undesirable, yet necessary, land uses, public facilities and services, and businesses to avoid over concentration in any one geographic area, community, or neighborhood.
LU-I.16	Ensure the provision of noise abatement and control policies that do not disenfranchise, or provide special treatment of, any particular group, location of concern, or economic status.

SOURCE: City of San Diego General Plan Land Use Element 2008.

Mobility Element

The Mobility Element contains policies that promote a balanced, multi-modal transportation network while minimizing environmental and neighborhood impacts. In

addition to addressing walking, streets, and transit, the element also includes policies related to regional collaboration, bicycling, parking, the movement of goods, and other components of the transportation system. The specific policies in the Mobility Element that apply to the development of all community plans throughout the city are included in Table 5.1-5.

TABLE 5.1-5
MOBILITY ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
ME-B.9	Make transit planning an integral component of long range planning documents and the development review process. a. Identify recommended transit routes and stops/stations as a part of the preparation of community plans and community plan amendments, and through the development review process. b. Plan for transit-supportive villages, transit corridors, and other higher-intensity uses in areas that are served by existing or planned higher-quality transit services, in accordance with Land Use and Community Planning Element, Sections A and C. c. Proactively seek reservations or dedications of right-of-way along transit routes and stations through the planning and development review process. d. Locate new public facilities that generate large numbers of person trips, such as libraries, community service centers, and some recreational facilities in areas with existing or planned transit access. e. Design for walkability in accordance with the Urban Design Element, as pedestrian supportive design also helps create a transit supportive environment. f. Address rail corridor safety in the design of development adjacent to or near railroad rights-of-way.
ME-C.1	Identify the general location and extent of streets, sidewalks, trails, and other transportation facilities and services needed to enhance mobility in community plans. a. Protect and seek dedication or reservation of right-of-way for planned transportation facilities through the planning and development review process. b. Implement street improvements and multi-modal transportation improvements as needed with new development and as areas redevelop over time. c. Identify streets or street segments where special design treatments are desired to achieve community goals. d. Identify streets or street segments, if any, where higher levels of vehicle congestion are acceptable in order to achieve vibrant community centers, increase transit-orientation, preserve or create streetscape character, or support other community-specific objectives. e. Increase public input in transportation decision-making, including seeking input from multiple communities where transportation issues cross community boundaries.

SOURCE: City of San Diego General Plan Land Use and Community Planning Element 2008.

Urban Design Element

Urban Design Element policies call for development that respects the City's natural setting; enhances the distinctiveness of neighborhoods; strengthens the natural and built linkages; and creates mixed-use, walkable villages throughout the City. The Urban Design Element addresses urban form and design through policies relative to San Diego's natural environment that work to preserve open space systems and target new growth into compact villages.

Public Facilities, Services, and Safety Element

The Public Facilities, Services, and Safety Element is directed at providing adequate public facilities and services through policies that address public financing strategies, public and developer financing responsibilities, prioritization, and the provision of specific facilities and services that must accompany growth. The policies within the Public Facilities Element also apply to: fire-rescue; police; wastewater collection and treatment; storm water infrastructure; water supply and distribution; waste management; libraries; schools; public utilities; and disaster preparedness.

Recreation Element

The goals and policies of the Recreation Element have been developed to take advantage of the City's natural environment and resources, to build upon existing recreation facilities and services, to help achieve an equitable balance of recreational resources, and to adapt to future recreation needs. The Recreation Element contains policies to address the challenge of meeting the public's park and recreational needs; the inequitable distribution of parks citywide, especially acute in the older, urbanized communities; and to work toward achieving a sustainable, accessible, and diverse park and recreation system. The Recreation Element also addresses alternative methods, or "equivalencies," to achieve citywide equity where constraints make meeting City guidelines for public parks infeasible, or to satisfy community-specific needs and demands. The specific policies in the Recreation Element that apply to the development of all community plans throughout the city are included in Table 5.1-6.

TABLE 5.1-6
RECREATION ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
RE-A.2	Use community plan updates to further refine citywide park and recreation land use policies consistent with the Parks Master Plan. a. In the absence of a Parks Master Plan, utilize community plans to guide park and recreation facilities acquisition and development citywide. b. Coordinate public facilities financing plans with community plan and the Parks Master Plan recommendations to properly fund needed park and recreation facilities throughout the City. c. Identify the location of population-based parks when updating community plans so they are accessible and centrally located to most users, unless a community benefit can be derived by taking advantage of unique opportunities, such as adjacency to open space, park linkages, desirable views, etc.

SOURCE: City of San Diego General Plan Land Use and Community Planning Element 2008

Conservation Element

The Conservation Element contains policies to guide the conservation of resources that are fundamental components of San Diego's environment, that help define the City's identity, and that are relied upon for continued economic prosperity. San Diego's resources include, but are not limited to water, land, air, biodiversity, minerals, natural materials, recyclables, topography, viewsheds, and energy. The specific policies in the Conservation Element that apply to the development of all community plans throughout the city are included in Table 5.1-7.

TABLE 5.1-7
CONSERVATION ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
CE-C.2	Control sedimentation entering coastal lagoons and waters from upstream urbanization using a watershed management approach that is integrated into local community and land use plans (see also Land Use Element, Policy LU-E-1).
CE-J.2	Include community street tree master plans in community plans. a. Prioritize community streets for street tree programs. b. Identify the types of trees proposed for those priority streets by species (with acceptable alternatives) or by design form. c. Integrate known protected trees and inventory other trees that may be eligible to be designated as a protected tree.
CE-J.3	Develop community plan street tree master plans during community plan updates in an effort to create a comprehensive citywide urban forest master plan.

Historic Preservation Element

The Historic Preservation Element guides the preservation, protection, restoration, and rehabilitation of historical and cultural resources. The specific policies in the Historic Preservation Element that apply to the development of all community plans throughout the City are included in Table 5.1-8.

TABLE 5.1-8
HISTORIC PRESERVATION ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
HP-A.2	Fully integrate the consideration of historical and cultural resources in the larger land use planning process. a. Promote early conflict resolution between the preservation of historical resources and alternative land uses. b. Encourage the consideration of historical and cultural resources early in the development review process by promoting the preliminary review process and early consultation with property owners, community and historic preservation groups, land developers, Native Americans, and the building industry. c. Include historic preservation concepts and identification of historic buildings, structures, objects, site, neighborhoods, and non-residential historical resources in the community plan update process. d. Conservation areas that are identified at the community plan level, based on historical resources surveys, may be used as an urban design tool to complement community character. e. Make the results of historical and cultural resources planning efforts available to planning agencies, the public and other interested parties to the extent legally permissible.

Noise Element

The Noise Element provides goals and policies to guide compatible land uses and the incorporation of noise attenuation measures for new uses to protect people living and working in the City from an excessive noise environment. The specific policies in the Noise Element that apply to the development of all community plans throughout the City are included in Table 5.1-9.

TABLE 5.1-9
NOISE ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
NE-A.1	Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.
NE-A.2	Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use (shown on Table NE-3) to minimize the effects on noise-sensitive land uses.
NE-A.3	Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.
NE-A.5	Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.
NE-B.1	Encourage noise-compatible land uses and site planning adjoining existing and future highways and freeways.
NE-B.5	Designate local truck routes to reduce truck traffic in noise-sensitive land use areas.
NE-C.1	Use site planning to help minimize exposure of noise-sensitive uses to rail corridor and trolley line noise.
NE-D.1	Encourage noise-compatible land use within airport influence areas in accordance with federal and state noise standards and guidelines.
NE-D.2	Limit future residential uses within airport influence areas to the 65 dBA CNEL airport noise contour, except for multiple-unit, mixed-use, and live work residential uses within the San Diego International Airport influence area in areas with existing residential uses and where a community plan and the Airport Land Use Compatibility Plan allow future residential uses.

Housing Element

The separately adopted 2013–2020 Housing Element is intended to assist with the provision of adequate housing to serve San Diegans of every economic level and demographic group.

Economic Prosperity Element

The intent of the Economic Prosperity Element is ". . . to improve the economic prosperity by ensuring that the economy grows in ways that strengthen our industries, retail and create good jobs with self-sufficient wages, increase average income, and stimulate economic investment in our communities" (City of San Diego 2008a).

The Economic Prosperity Element addresses the community planning process and the distribution of land uses. This element applies to the CPU area, especially for the goals and policies related to employment opportunities from infill development near transit and village-type development, small business enterprises, and the retention of industrial uses. Applicable General Plan policies from this element are listed in Table 5.1-10.

TABLE 5.1-10
ECONOMIC PROSPERITY ELEMENT POLICIES RELATED TO COMMUNITY PLANS

Policy	Description
EP-A.1	Protect base sector uses that provide quality job opportunities including middle-income jobs; provide for secondary employment and supporting uses; and maintain areas where smaller emerging industrial uses can locate in a multi-tenant setting. When updating community plans or considering plan amendments, the industrial land use designations contained in the Land Use and Community Planning Element should be appropriately applied to protect viable sites for base sector and related employment uses.
EP-A.4	Include base sector uses appropriate to an office setting in Urban Village and Community Village Centers.
EP-A.5	Consider the redesignation of non-industrial properties to industrial use where land use conflicts can be minimized. Evaluate the extent to which the proposed designation and subsequent industrial development would: • Accommodate the expansion of existing industrial uses to facilitate their retention in the area in which they are located. • Not intrude into existing residential neighborhoods or disrupt existing commercial activities and other uses. • Mitigate any environmental impacts (traffic, noise, lighting, air pollution, and odor) to adjacent land. • Be adequately served by existing and planned infrastructure.
EP-A.6	Provide for the establishment or retention of non-base sector employment uses to serve base sector industries and community needs and encourage the development of small businesses. To the extent possible, consider locating these types of employment uses near housing. When updating community plans or considering plan amendments, land use designations contained in the Land Use and Community Planning Element should be appropriately applied to provide for non-base sector employment uses.
EP-A.7	Increase the allowable intensity of employment uses in Subregional Employment Areas and Urban Village Centers where transportation and transit infrastructure exist. The role of transit and other alternative modes of transportation on development project review are further specified in the Mobility Element, Policies ME-C.8 through ME-C.10.
EP-A.12	Protect Prime Industrial Land as shown on the Industrial and Prime Industrial Land Map, Figure EP-1. As community plans are updated, the applicability of the Prime Industrial Land Map will be revisited and changes considered. a. Amend the boundaries of Figure EP-1 if community plan updates or community plan amendments lead to an addition of Prime Industrial Lands, or conversely, a conversion of Prime Industrial Land uses to other uses that would necessitate the removal of properties from the Prime Industrial Land identification. b. Amend the boundaries of Figure EP-1 if community plan updates or community plan amendments/rezones lead to a collocation (the geographic integration of residential uses and other non-industrial uses into industrial uses located on the same premises) of uses. c. Justification for a land use change must be supported by an evaluation of the prime industrial land criteria in Appendix C, EP-1, the collocation/conversion suitability factors in Appendix C, EP-2, and the potential contribution of the area to the local and regional economy.

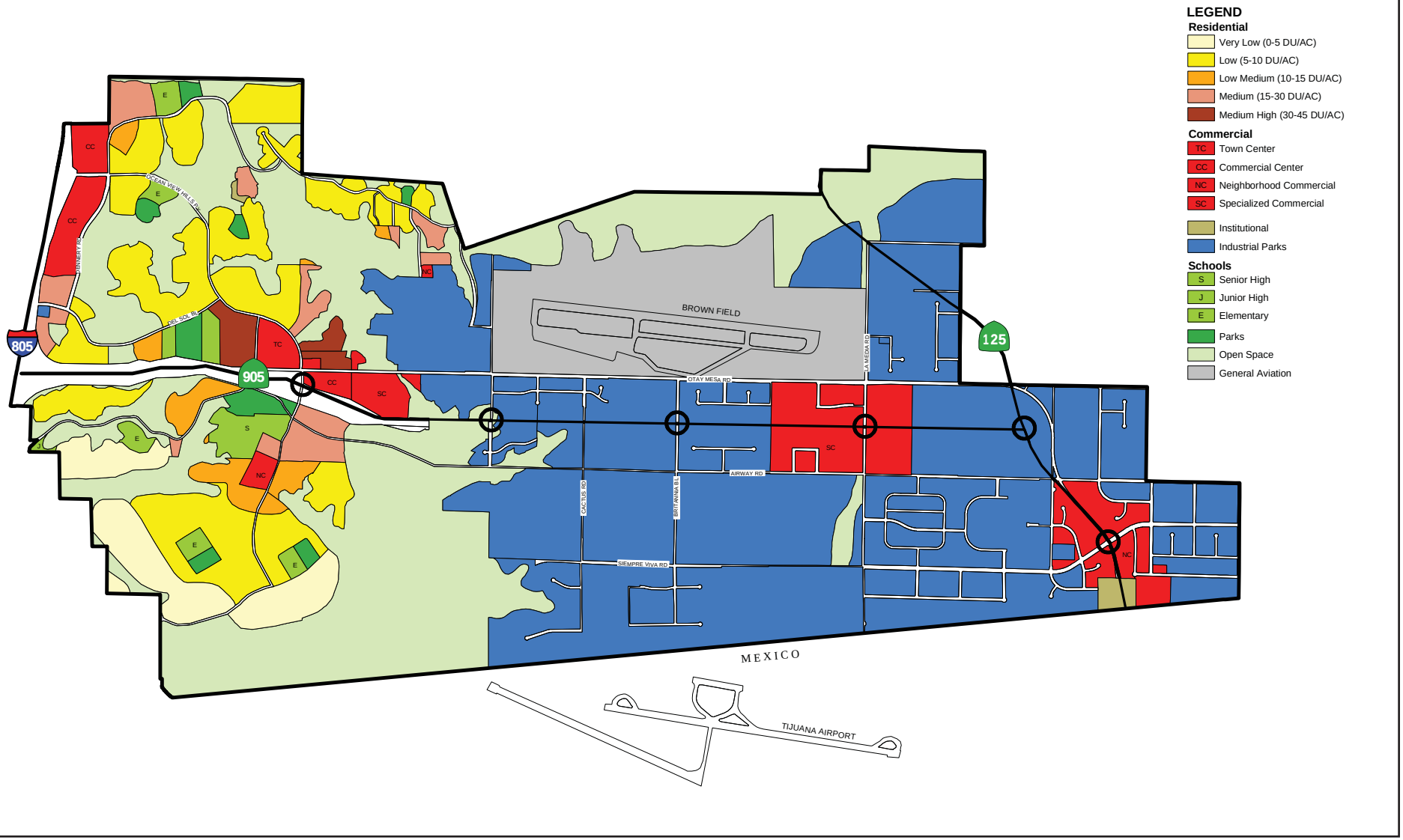
TABLE 5.1-10
ECONOMIC PROSPERITY ELEMENT POLICIES RELATED TO COMMUNITY PLANS
(continued)

Policy	Description
EP-A.13	In areas identified as Prime Industrial Land as shown on Figure EP-1, do not permit discretionary use permits for public assembly or sensitive receptor land uses.
EP-A.14	In areas identified as Prime Industrial Land as shown on Figure EP-1, child care facilities for employees' children, as an ancillary use to industrial uses on a site, may be considered and allowed when they: are sited at a demonstrably adequate distance from the property line, so as not to limit the current or future operations of any adjacent industrially-designated property; can assure that health and safety requirements are met in compliance with required permits; and are not precluded by the applicable Airport Land Use Compatibility Plan.
EP-A.15	The identification of Prime Industrial Land on any property does not preclude the development or redevelopment of such property pursuant to the development regulations and permitted uses of the existing zone and community plan designation, nor does it limit the application of any of the Industrial Employment recommended community plan land use designations in Table LU-4, provided that residential use is not included.
EP-A.16	In industrial areas not identified as Prime Industrial Lands on Figure EP-1, the redesignation of industrial lands to non-industrial uses should evaluate the Area Characteristics factor in Appendix C, EP-2 to ensure that other viable industrial areas are protected.

Availability and retention of industrial uses is an important part of the Economic Prosperity Element goals and strategies as well as the community plans. Policies EP-A.12 through A.16 refer to the General Plan Figure EP-1 (Industrial and Prime Industrial Land Identification), which displays the prime industrial land throughout the City, including the CPU area. The areas identified as prime industrial lands support "export-oriented base sector activities such as warehouse distribution, heavy or light manufacturing, research and development uses…that provide a significant benefit to the regional economy" (City of San Diego 2008a).

As shown on Figure 5.1-2, industrial lands are designated primarily in the eastern portion of the CPU area and adjacent to Brown Field. Appendix C of the General Plan contains a list of factors to consider when a change in land use is proposed. Important factors when considering the suitability of a site for industrial use include: whether or not the community plan designates the land for industrial uses, the presence of physical characteristics which would facilitate modern industrial development, and the balance of sensitive receptor land uses. The table of Collocation/Conversion Suitability Factors from Appendix C is replicated as Table 5.1-11 of this EIR.

Map Source: City of San Diego Planning Department



No Scale

FIGURE 5.1-2

Adopted OMCP Land Use Map

TABLE 5.1-11
COLLOCATION/CONVERSION SUITABILITY FACTORS

Factor	Description
Area Characteristics	The amount of office and commercial development in the area. The significance of encroachment of the non-industrial uses which has already occurred in the area. The area's attractiveness to manufacturing, research and development, wholesale distribution, and warehousing uses, based on a variety of factors including: physical site characteristics, parcel size, parcel configuration, surrounding development patterns, transportation access, and long-term market trends.
Transit Availability	The area is located within one-third mile of existing or planned public transit. The project proponent's ability to provide or subsidize transit services to the project, if public transit service is not planned or is inadequate.
Impact on Prime Industrial Lands	The location of the proposed project adjacent to prime industrial lands and the impact of the proposed project utilization of the prime industrial lands for industrial purposes.
Significance of Residential/Employment Component	The significance of the proposed residential density to justify a change in land use. If residential is proposed on the same site, the amount of employment space on the site is to be retained.
Residential Support Facilities	The presence of public and commercial facilities generally associated with residential neighborhoods in close proximity to the area, such as recreational facilities, grocery stores, and schools.
Airport Land Use Compatibility	The location of the site in the airport influence area where incompatibilities may result due to adopted Airport Land Use Compatibility Plan policies, Air Installation Compatibility Use Zone Study recommendations, and restrictive use easements.
Public Health	The location of the site in an employment area where significant incompatibilities may result regarding truck traffic, odors, noise, safety, and other external environmental effects.
Public Facilities	The availability of facilities to serve the residential units. Provide public facilities on-site wherever feasible.
Separation of Uses	The adequacy of the separation between industrial and residential properties with regard to hazardous or toxic air contaminants or hazardous or toxic substances. Determine if there are any sources of toxic or hazardous air contaminants, or toxic or hazardous substances, within a quarter mile of the property between proposed residential or other sensitive receptor land uses and proposed properties where such contaminants or substances are located. If so, an adequate distance separation shall be determined on a case-by-case basis based on an approved study submitted by the applicant to the City and appropriate regulatory agencies. If no study is completed, provide a 1000-ft. minimum distance separation between property lines. Uses which are not sensitive receptor land uses, such as most commercial and business offices, retail uses, parking, open space, and public rights-of way can locate between the properties within the separation area.

SOURCE: City of San Diego General Plan Appendix C 2008.

Otay Mesa is also designated as a Subregional Employment Area in the General Plan, Appendix C, Figure EP-2, and guidelines are included in Appendix C, EP-3. As detailed in the appendix, the proximity to Mexico and flat topography make Otay Mesa an ideal location for distribution centers that conduct business between the United States and Mexico. The following is an excerpt from the appendix related to land use designations and permitting:

> Most of the land in Otay Mesa has been designated for industrial uses and utilizes special zoning to provide for purely industrial uses, with discrete areas reserved to support commercial services and limited retail uses. A land use designation permitting heavy industrial uses should be applied in portions of the community to prevent encroachment by non-industrial uses. Adequate separation should also be provided if residential uses are located in close proximity. Support of infrastructure development and preservation of areas for primarily industrial uses that support manufacturing and international trade activities are essential to provide middle-income job opportunities and contribute to the growth of the City's overall economic base.

Some non-Mexico-related manufacturers and distributors have begun relocating to Otay Mesa from other parts of Southern California due to the availability of large continuous parcels, land costs and industrial lease rates. Most structures in this area are modern single-story concrete "tilt-up": industrial buildings with loading docks.

Collocation/Buffer Strategy

General Plan Land Use Policy LU1.14 focuses on separating sensitive receptors from industrial uses. The Economic Prosperity Element includes policies EP-A.1 through EP-A.20 which address the means by which the City would minimize land use conflicts and preserve the most important types of industrial land, or prime industrial land, from conflict with residential, public assembly, and other sensitive receptor land uses. The General Plan provides for collocation of residential and industrial uses as a means for locating workforce-housing opportunities near job centers provided land use conflicts are minimized or avoided. In addition, Table 5.1-11 of this EIR presents the criteria for determining whether a use is suitable for collocation/conversion.

b. Adopted Otay Mesa Community Plan

The CPU area is one of more than 50 community planning areas within the City. The community plan for a given area outlines the goals, objectives, and policies for future land use development within that community. Community plans work to implement the General Plan and, as such, are written to be consistent with the policies and recommendations of the General Plan and other citywide policies. Land use mapping

for the City is accomplished at the community plan level, using land use categories established and defined within the General Plan Land Use Element.

Community plans provide guidance for public and private development proposals. However, community plans do not contain regulatory requirements. Regulatory requirements are contained in the LDC, as explained in Section 5.1.1.2.c, below.

Each community plan must be in harmony with other community plan documents, the General Plan, and City policies. Community plan documents include sections addressing land use, transportation, urban design, public facilities, services, economic development, and other issues important to the community. Plans are tailored to address the needs of each community with specific recommendations and goals designed to reflect the unique issues and concerns pertinent to the individual community. Community plans complement General Plan policies by designating appropriate areas for village development and specific land uses and selecting sites for public facilities, among other functions.

The adopted Otay Mesa Community Plan (1981), as amended, addresses the development of land within Otay Mesa, and provides more detailed land use, design, roadway, and implementation information than what is found at the General Plan level. To achieve the goal of "a balanced land use concept," the adopted Otay Mesa Community Plan promotes:

- development of a relatively self-contained community,
- a 3,500-acre industrial park including a foreign trade zone,
- coordination of the proposed second international crossing with local, state, and federal agencies and plans of the Mexican government, and
- phased annexation of the unincorporated County area east of the Otay Mesa Community Plan area to the City of San Diego.

Specific goals, objectives, and policies to implement the adopted Otay Mesa Community Plan are contained in its elements: Land Use, Industrial, Community Environmental and Design, Open Space, Public Facilities, and Social Environment.

Figure 5.1-2 illustrates the adopted Otay Mesa Community Plan land use designations, modified to reflect the incorporation of MHPA lands in 1997. The amendment of the Otay Mesa Community Plan to designate over 2,000 acres as MHPA open space resulted in the loss of previously designated residential areas. Table 5.1-12 provides a tabulation of acreage for each land use category and projected resident population at buildout for the adopted Otay Mesa Community Plan, as amended. This table reflects the adopted Otay Mesa Community Plan land use designations for the CPU area, and does not include the larger study area identified in the adopted community plan and EIR, which included a potential annexation area to the east.

TABLE 5.1-12
ADOPTED OTAY MESA COMMUNITY PLAN
DESIGNATED LAND USES

Population	45,324	
Land Use Designations		Coverage
Residential:	1,269 ac	
Single-family detached	4,800 du	13%
Multi-family attached	7,600 du	
Total Residential dus	12,400 du	
Commercial	452 ac	5%
Industrial	2,839 ac	31%
Institutional	1,027 ac	11%
Parks	64 ac	1%
Open Space	2,570 ac	27%
Right-of-Way	1,098 ac	12%
TOTAL	9,319 ac	100%

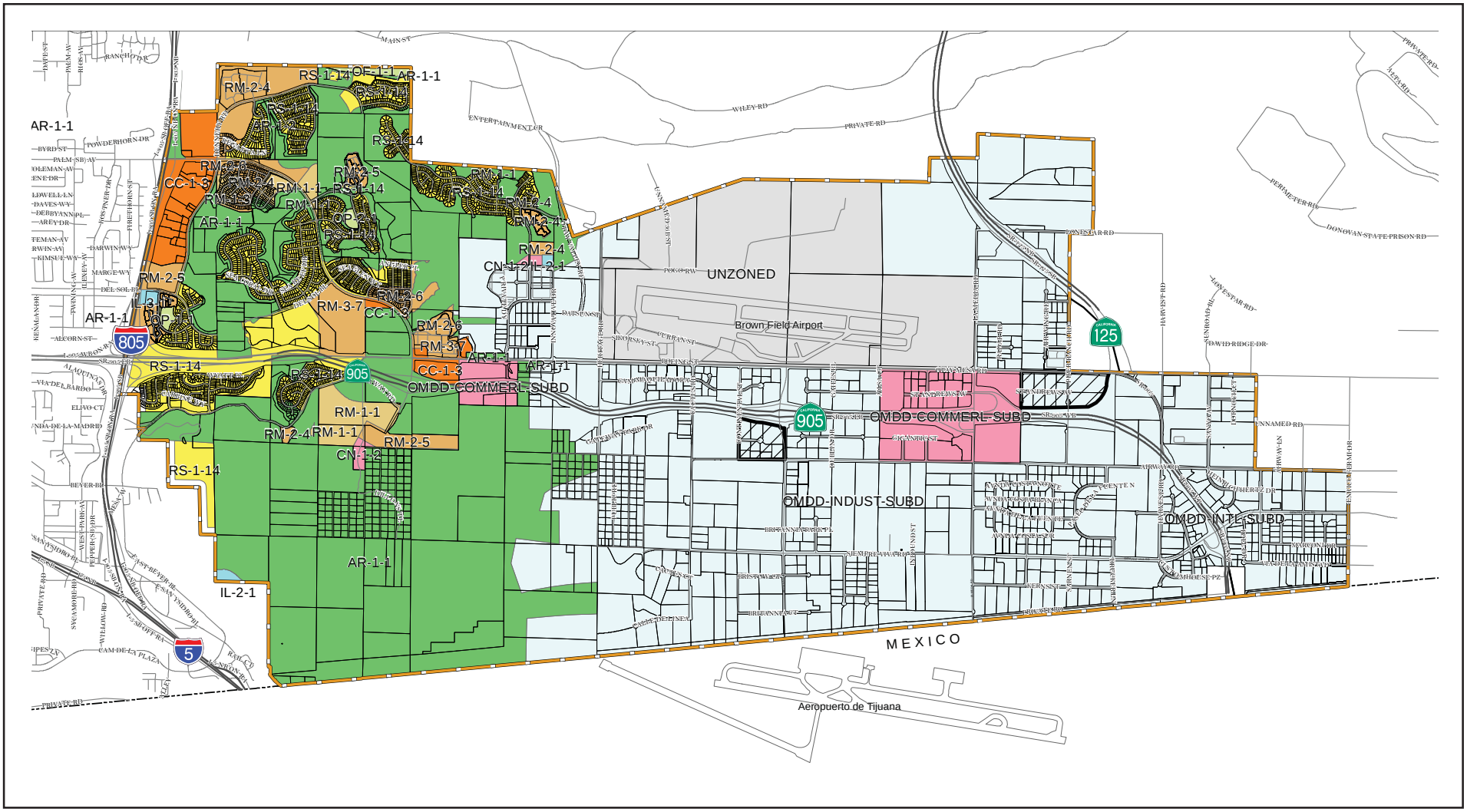
SOURCE: OMCPU, April 2011 Draft, Table 2-1
ac = acres; du = dwelling units

c. Land Development Code

Chapters 11 through 15 of the City's Municipal Code are referred to as the LDC, as they contain the City's land development regulations that dictate how land is to be developed and used within the City. The LDC contains citywide base zones and the planned district ordinances that specify permitted land use; development standards, such as density, floor-area ratio (FAR), and other requirements for given zoning classifications; overlay zones, and other supplemental regulations that provide additional development requirements.

Historically, the western portion of Otay Mesa was zoned agricultural, with residential zoning introduced as the Precise Plans and subdivisions were adopted and implemented. Residential zoning in the CPU area is currently concentrated in the western third of the CPU area and consists of a mixture of Citywide single-family and multi-family zones. Remaining agricultural zoning within the CPU area occurs generally within the northwestern canyon areas, as well as the southwestern precise planning area and canyons. Except for Brown Field, which is unzoned, the eastern two-thirds of the CPU area is zoned and governed by the OMDD as discussed below. Figure 5.1-3 shows existing zoning for the CPU area.

Map Source: City of San Diego



No Scale

Community Plan Boundary

Parcels

FIGURE 5.1-3

Existing Zoning

M:\JOBS2\3957-1\env\graphics\fig5.1-3.ai 08/02/13

Otay Mesa Development District

The OMDD is one of the Planned District Ordinances (PDO) within the LDC. PDOs provide tailored zoning, used in conjunction with the LDC, for specified areas of the City. The City proposes to rescind the OMDD and replace it with citywide zoning as part of the community plan update process.

The area regulated by the OMDD is the City's largest planned industrial area with proximity and accessibility to Mexico. The OMDD regulates the use, intensity, and design of the primarily industrial 3,371-acre area, which includes a commercial subdistrict (240 acres) and a large border station mixed-use subdistrict (450 acres). Figure 5.1-3 shows the location and extent of the OMDD and subdistricts. As shown in Figure 5.1-3, the OMDD overlays a large portion of the CPU area, covering the entire eastern two-thirds of the CPU area, excluding Brown Field.

The OMDD provides for a full range of industrial uses emphasizing base sector manufacturing including wholesaling and distribution, assembly operations, and necessary support services. The intent of the OMDD is to expedite the processing of development permit applications in order to encourage the provision of that full range of industrial uses, while also including wholesaling and distribution, and assembly operations. It is also the intent of the OMDD to provide the necessary facilities, services, and commercial uses that complement the industrial uses and the Otay Mesa border crossing. The OMDD also provides for, agricultural activities as an interim use.

An OMDD permit is required in certain cases. The following is a list of projects that would require an OMDD Permit in accordance with Section 1517.0202(b):

- Any project that uses transfer of development rights and any project that uses acquired development rights.
- Any project within the Canyon and Hillside Subdistrict (Section 1517.0303).
- Any project which deviates from the regulations of the OMDD.
- Any project which includes a hotel or motel.
- Any project for which a tentative map has not been approved subsequent to March 14, 1985 (Otay Mesa reorganization).

Environmentally Sensitive Lands Regulations

The purpose of the ESL Regulations (LDC Sections 143.0101 through 143.0160) is to protect, preserve and, where damaged, restore environmentally sensitive lands and the viability of the species supported by those lands. The ESL Regulations apply to all proposed development when environmentally sensitive lands, including sensitive biological resources, steep hillsides, floodplains, or coastal bluffs, are present. The

regulations are designed to ensure that development occurs in a manner that protects natural resources and the natural and topographic character of the area, and retains biodiversity and interconnected habitats.

The ESL Regulations contain development regulations that are applied through a Site Development Permit when there is a potential for impacts to environmentally sensitive resources. For areas outside of the MHPA (see below), the ESL provides no limit on development encroachment into sensitive biological resources, with the exception of wetlands (including vernal pools) and listed non-covered species habitat and narrow endemic species. Development of steep hillsides outside of the MHPA is only allowed when necessary to achieve a maximum development area of 25 percent of the premises. Development encroachment into steep hillsides and sensitive biological resources within the MHPA is restricted. Development within the MHPA beyond 25 percent of the least environmentally sensitive areas is not allowed; thus, such proposed development would be required to process a MHPA Boundary Line Adjustment. If development does not comply with the Hillside encroachment allowances, a deviation would be required and granted by the City if certain findings can be made.

Within the CPU area, ESL resources include sensitive species and habitats, vernal pools and other wetlands, and steep hillsides. Many of the ESL resources are within the existing designated MHPA and are thus restricted from development encroachment of more than 25% of the least sensitive areas. Compliance of the CPU with the ESL Regulations is discussed in Issue 3, Section 5.1.5.

Historical Resources Regulations

The purpose of the City's Historical Resources Regulations (HRR) (LDC Sections 143.0201 through 143.0280) is to protect, preserve, and, where damaged, restore the historical resources of San Diego. Historical resources include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties (TCPs). These regulations are intended to protect historical resources quality, and to protect the educational, cultural, economic, and general welfare of the public, while maintaining sound historical preservation principles and the rights of property owners.

As discussed in Section 5.5 of this PEIR, Historical Resources, several known historical resources exist within the CPU area and are primarily concentrated within the Brown Field Historic District just south of the landing strip and the surrounding areas outside of Brown Field. The potential for unidentified historical resources also exists within other portions of the CPU area. Compliance of the CPU with the City's HRR is discussed below in Issue 3, Section 5.1.5.

Brush Management Regulations

The City's Brush Management Regulations (LDC Section §142.0412) are intended to minimize wildland fire hazards through prevention activities and programs. These regulations are intended to limit hazardous wildland fire situations by requiring the provision of mandatory setbacks, irrigation systems, regulated planting areas, and plant maintenance in specific zones, and, as discussed further in Issue 3 Section 5.1.5 below, are implemented at the project level through the grading and building permit process.

d. Brown Field Airport Land Use Compatibility Plan

The San Diego County Regional Airport Authority was established by state law to operate the San Diego International Airport and address the region's long-term air transportation needs, and as such, comprises the Airport Land Use Commission (ALUC) for all the airports in San Diego County, including Brown Field. The purpose of the ALUC is to protect public health, safety, and welfare by ensuring the orderly development of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports, to the extent that these areas are not already devoted to incompatible uses.

A Comprehensive Land Use Plan (CLUP) was adopted for Brown Field in 1981. This CLUP was subsequently changed to an ALUCP in October 2004and amended in January 2010. State law requires the City to amend its General Plan and community plans within 180 days after the ALUC adopts a new ALUCP to make the land use plans consistent with the ALUCP. The Brown Field ALUCP is designed to safeguard the general welfare of persons within the vicinity of the airport and the public in general. Development in the vicinity of the airport must be consistent with the ALUCP, and the Airport Authority has the responsibility to review certain land use actions for compliance with the criteria and policies set forth in the ALUCP including adoption or amendments to general plans, specific plans, and zoning ordinances. The ALUCP contains compatibility policies and criteria and ALUC review procedures addressing the following types of compatibility concerns: noise, overflight, safety, and airspace protection. To facilitate the application of the compatibility policies and criteria and ALUC review procedures, the ALUCP identifies the Airport Influence Area (AIA), the noise contours to be used for planning purposes, the airport safety zones, and the airspace protection surfaces.

The Brown Field ALUCP is based on the Brown Field Master Plan that reflects the anticipated growth of the airport during the next 20 years. The ALUCP differs from the master plan in that the focus of the ALUCP is on the land around the airport while the focus of the airport master plan is on property within the airport boundary. In addition, primary responsibility for adoption of a ALUCP rests with the ALUC, while responsibility for adoption of the Brown Field Master Plan belongs to the City.

Figure 5.1-4 shows the ALUCP projected noise contours, expressed in community noise equivalency levels (CNELs). The Aeronautics Division of Caltrans has determined that a 65 decibel CNEL is the level at which residential land use becomes incompatible in relation to aircraft operations. As shown in Figure 5.1-4, the 65 CNEL contour encompasses the area surrounding the runway corridor, and remains largely within the Brown Field property. It extends beyond the Brown Field property at both ends of the runway, onto land designed by the adopted community plan as "General Aviation" or "Industrial".

The AIA, shown in Figure 5.1-5, encompasses much of the CPU area. The AIA is the area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The City, through its community planning process and zoning ordinance, retains land use control in the AIA.

To preclude incompatible development from intruding into areas of significant risk resulting from aircraft takeoff and landing patterns, the ALUCP identifies areas of significant risk as "Safety Zones." The Safety Zones for Brown Field are located adjacent to the ends of the runway's primary surfaces, over which all aircraft using the airport must pass on either arrival or departure. These areas are shown in Figure 5.1-6. The Safety Zones are used for evaluating safety compatibility for new development.

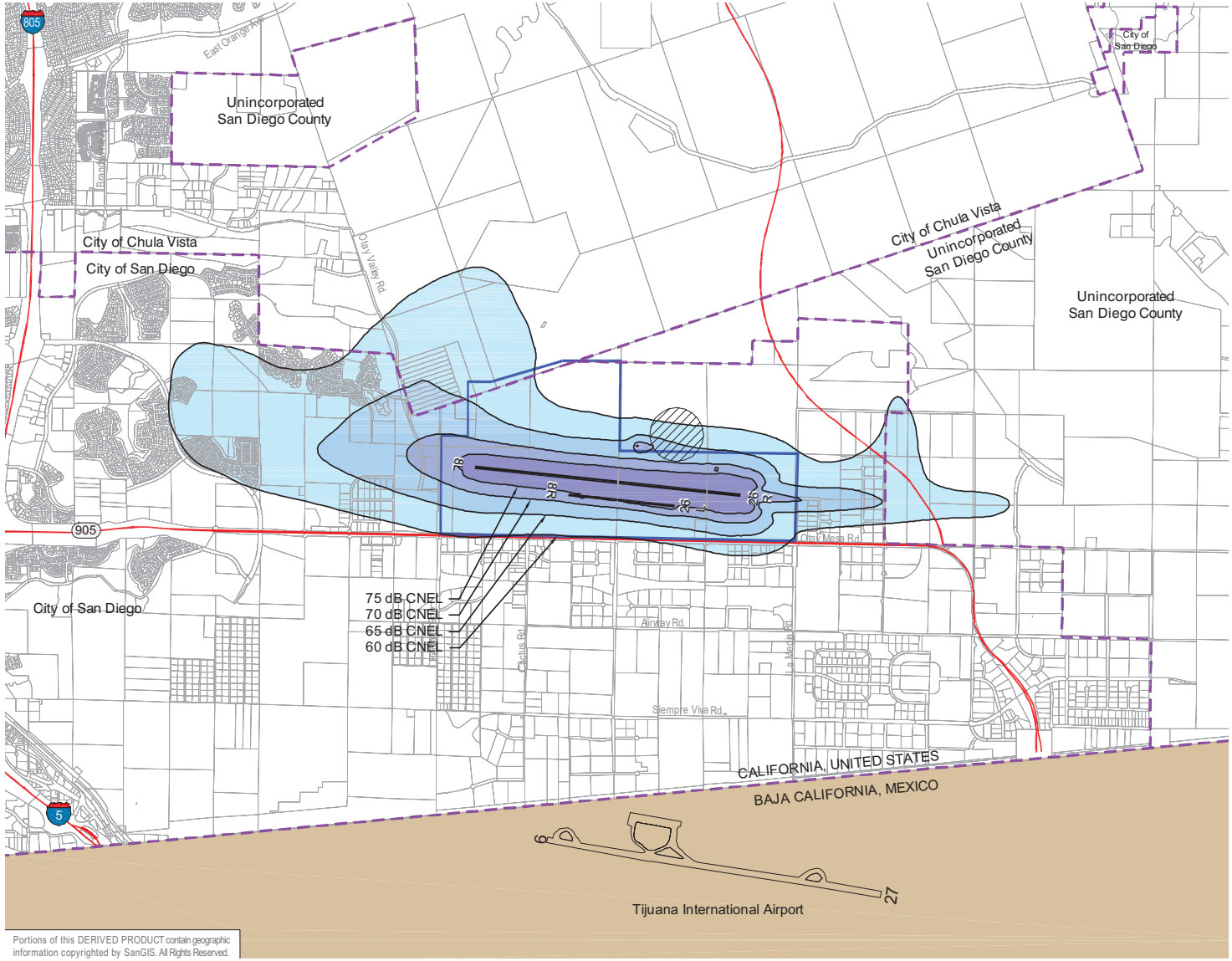
e. MSCP

The MSCP is a comprehensive habitat conservation planning program for San Diego County. A goal of the MSCP is to preserve a network of habitat and open space, protecting biodiversity. Local jurisdictions, including the City, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms.

MSCP Subarea Plan

The City of San Diego's MSCP Subarea Plan was approved in March 1997, and provides a process for the issuance of incidental take permits (ITP) under the federal and state Endangered Species Act and the California Natural Communities Conservation Planning (NCCP) Act. The primary goal of the City's MSCP Subarea Plan is to conserve viable populations of sensitive species and regional biodiversity while allowing for reasonable economic growth. To carry out this goal, the City's MSCP Subarea Plan establishes a 52,727-acre area in which a permanent MSCP preserve, known as the MHPA, is assembled. For parcels 100% within the MHPA, development or other discretionary actions are allowed in the least environmentally sensitive 25 percent of the property. If more developable area is desired, the applicant may request a MHPA boundary line adjustment without the need to amend the City's MSCP Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area proposed for addition into the MHPA must meet

Map Source: Airport Landuse Commision, San Diego County



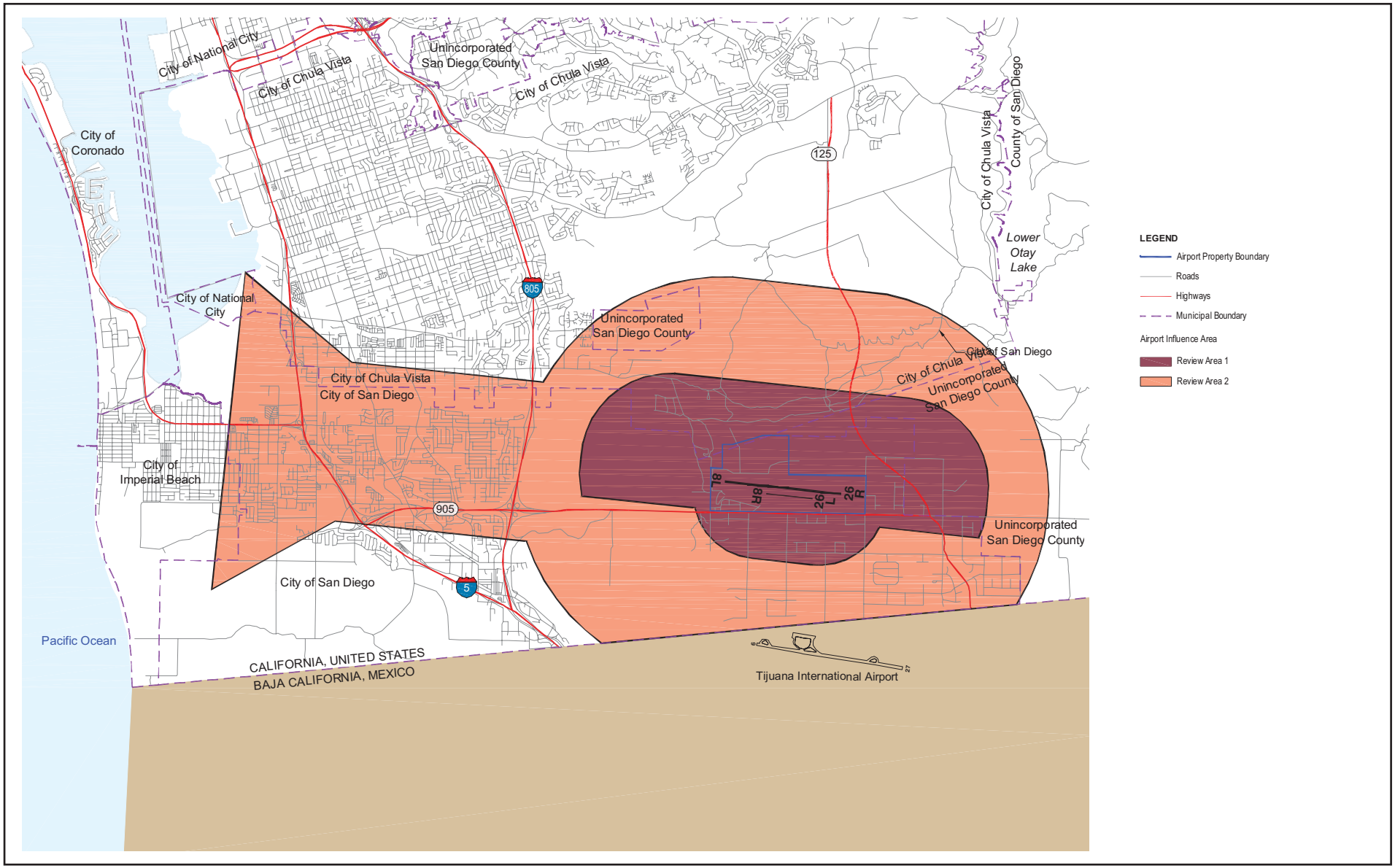
M:\JOBS2\3957-1\env\graphics\fig5.1-4.ai 06/19/13

No Scale

FIGURE 5.1-4

Brown Field Noise Contours

Map Source: Airport Landuse Commision, San Diego County

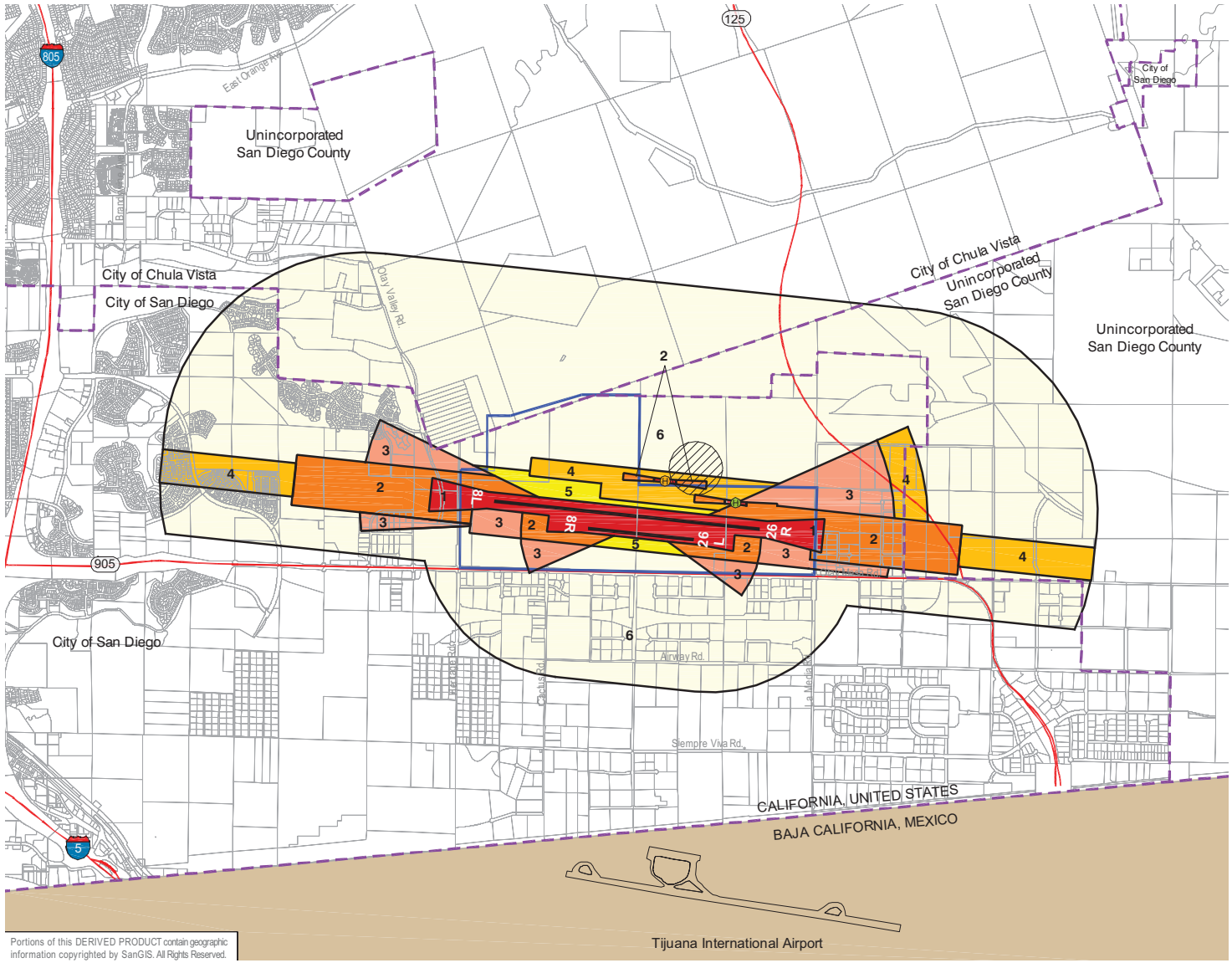


M:\JOBS2\3957-1\env\graphics\fig5.1-5.ai 6/20/13

No Scale

FIGURE 5.1-5
Brown Field AIA

Map Source: Airport Landuse Commision, San Diego County



M:\JOBS2\3957-1\env\graphics\fig5.1-6.ai 6/20/13

No Scale

FIGURE 5.1-6

Brown Field Safety Zones

the six functional equivalency criteria set forth in Chapter 5.4.2 of the Final MSCP Plan (August 1998). Essentially, these require that the land to be taken out of the MHPA be replaced with land of at least equal if not more valuable habitat. The adjustment must be approved by the USFWS and the CDFW (Wildlife Agencies).

A MHPA Boundary Line Correction within the south central CPU area was approved by the City and Wildlife Agencies on March 13, 2013. Due to a mapping registration error, the MHPA was mapped over 3.7 acres of existing development permitted as part of the International Business Center Project (EQD No. 86-0535) which was approved in the late 1980s. The MHPA boundary was shifted to the south in order to remove the approved developed area and to add the 10.8 acres in Wruck Canyon that had been conserved as part of the International Business Center Project. The correction resulted in a net gain of 7.1 acres within the MHPA.

MHPA Land Use Adjacency Guidelines

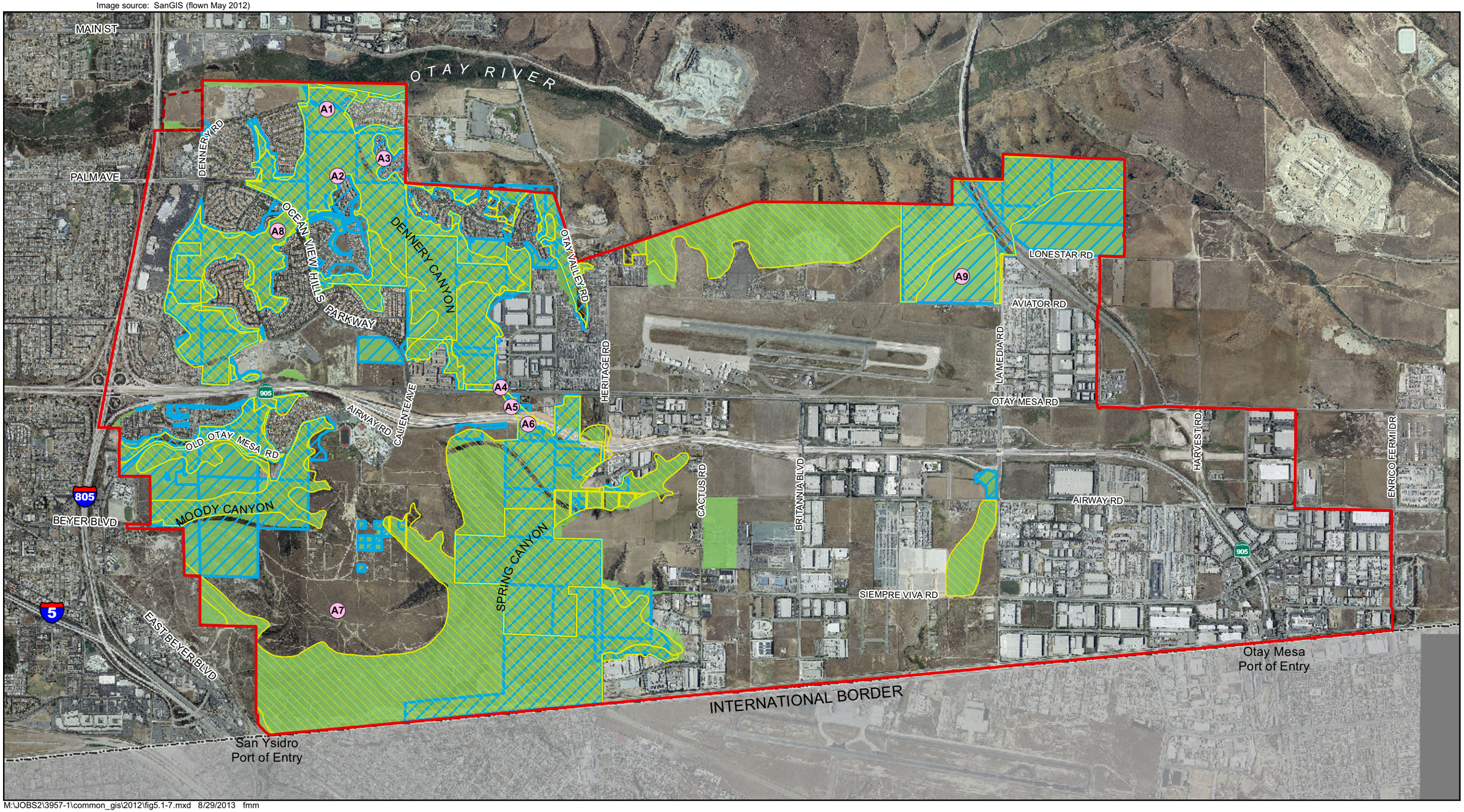
The City's MSCP Subarea Plan additionally provides MHPA Land Use Adjacency Guidelines which aim to avoid or reduce significant indirect impacts from adjacent uses. These guidelines address the issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/development and are intended to be incorporated into the Mitigation Monitoring and Reporting Program (MMRP) and applicable permits during the development review phase of future proposed projects. New development adjacent to the MHPA would be required to address means of reducing these indirect impacts through implementation of the MHPA Land Use Adjacency Guidelines.

Designated MHPA within the CPU area is shown in Figure 5.1-7 and includes canyon areas as well as areas of grasslands, vernal pools, and upland habitats. As shown in Figure 5.1-7, a culvert under Otay Mesa Road west of Heritage Road comprises a wildlife corridor linking the Spring and Moody Canyon habitat complexes on the south to the Dennery Canyon habitat on the north. The San Diego County MSCP lands and Chula Vista Habitat Preserve are also shown in Figure 5.1-7. The San Diego County MSCP is adjacent to and east of the CPU area. The Chula Vista Habitat Preserve is largely north of the CPU area.

Otay Mesa MHPA Guidelines

Otay Mesa is in the southern area of the MHPA which also includes Otay River Valley and Tijuana Estuary and Tijuana River Valley. The plan describes the Otay Mesa areas of the MHPA and its vision as a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability. The City's MHPA guidelines for Otay Mesa as excerpted from Section 1.2.1 of the MSCP Subarea Plan (City of San Diego 1997) are detailed in Section 5.4 of this PEIR.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.1-7.mxd 8/29/2013 fmm

0 Feet 2,500

Otay Mesa Community Plan Boundary
Not A Part
MHPA Specific Guideline Areas

City of San Diego MHPA
SANGIS Conserved Lands Database

Otay Mesa Community Land Use Plan

OPEN SPACE

FIGURE 5.1-7

Designated MHPA within the CPU Area

THIS PAGE IS INTENTIONALLY BLANK.

Vernal Pool Lawsuit

In October of 2006, Judge Brewster issued a Decision and Injunction (Case no. 98-CV-2234-B(JMA)) in a lawsuit filed by the Southwest Center for Biological Diversity against the USFWS over the issuance of an ITP under Section 10 of the ESA to the City of San Diego based upon the MSCP. The lawsuit was limited to the seven vernal pool species, including two crustacean species (San Diego and Riverside fairy shrimp) and five plant species (Otay mesa mint, California Orcutt grass, San Diego button celery, San Diego mesa mint, and spreading navarretia).

The Court enjoined the City of San Diego's ITP for all pending and future development projects where "take" of any of the seven vernal pool species may occur, including:

- Pending applications for development of land containing vernal pool habitat;
- Projects where the City has granted permits, but development had not yet occurred;
- Future development where the permittee was engaged in the destruction of vernal pool habitat.

As a result of this ruling, numerous private and public development projects, which contained vernal pool resources within their project site were enjoined. The Court determined that the City and USFWS were not providing adequate coverage under the MSCP for vernal species. The following are the main inadequacies identified in the ruling:

- Mitigation was not beneficial and could not be modified for the life of the permit;
- Creation of vernal pools was not feasible;
- Measures to determine impact allowance was arbitrary and did not provide the same level of protection for "unnatural" vernal pools;
- Funding was speculative.

All parties entered into mediation in 2007, which continued through 2009, when it ended in an impasse. During the meditation, it was determined that a HCP would be prepared for the comprehensive protection of vernal pool resources. The City was awarded an Cooperative Endangered Species Conservation Fund (CESCF)Section 6 grant in 2009 for the preparation of a vernal pool Habitat Conservation Plan (HCP). In April 2010, the City entered into a Planning Agreement with the USFWS for the preparation of the HCP

Also, in April 2010 the City relinquished federal coverage of the seven vernal pool species covered by the MSCP. The USFWS does not rely on the City's federal ITP to authorize incidental take for these species. In 2011, Judge Brewster declared the 2006 ruling moot since the relevant portions (i.e., vernal pool species) of the City's ITP were no longer in effect.

Upon completion of a HCP for vernal pools, the City would enter into an Implementing Agreement (IA) in order to obtain species coverage and a federal ITP for the seven vernal pool species. Incidental take authorization for projects that affect the seven vernal pool species could also be authorized through a Federal Endangered Species Act (FESA) Section 10 (a) or Section 7 consultation with the USFWS, initiated as part of the 404 permit process by the USACE. A Biological Opinion is issued that serves as the ITP.

f. SANDAG's Regional Comprehensive Plan

The RCP (2004) is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The RCP establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The RCP encourages cities and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. Basic smart growth principles designed to strengthen land use and transportation integration through an emphasis on pedestrian-friendly design and mixed-use development are summarized as follows:

- Mix compatible uses
- Take advantage of compact building design
- Create a range of housing opportunities and choices
- Create walkable neighborhoods
- Foster distinctive, attractive communities with a strong sense of place
- Preserve open space, natural beauty, and critical environmental areas
- Strengthen and direct development towards existing communities
- Provide a variety of transportation choices
- Make development decisions predictable, fair, and cost-effective
- Encourage community and stakeholder collaboration in development decisions

The RCP also addresses border issues, providing an important guideline for communities that have borders with Mexico. In this case, the goal is to create a regional community where San Diego, its neighboring counties, tribal governments, and northern Baja California mutually benefit from San Diego's varied resources and international location.

g. SANDAG's 2050 Regional Transportation Plan and Sustainable Communities Strategy

SANDAG's 2050 RTP, adopted October 28, 2011, serves as the regional transportation planning tool for the County. It is a long-range advisory vision plan for transit, rail, and bus services, express or managed lanes, highways, local streets, bicycling, and walking. The RTP focuses on a Sustainable Communities Strategy (SCS) consistent with SB 375, ensuring social equality in developing the transportation system, projections on reasonably available financial resources, and offering more travel choices. The SCS details how the region would reduce greenhouse gas emissions to state-mandated levels over time. The vision presented in the RTP would be to develop a compact urban core where more people reside and use fewer resources. This vision reflects a transportation system that supports a robust economy and a healthy and safe environment with climate change protection while providing a higher quality of life for San Diego County residents. This includes better activity centers with homes and jobs enabling more people to use transit and walk and bike; efficiently transporting goods; and providing effective transportation options for all people.

It should be noted that the PEIR prepared for the RTP and SCS is the subject of ongoing litigation (as of printing of this PEIR).

5.1.2 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds, a significant land use impact would occur if the CPU would:

1. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project; or

2. Result in the collocation of residential and industrial land uses and/or conversion of industrial to residential land uses, proposed as part of the CPU, create land use incompatibilities or result in physical changes as a result of precluding achievement of regional economic development objectives/policies for industrial development; or

3. Result in a conflict with the purpose and intent of the ESL Regulation, the Historical Resources Regulations, and the Brush Management Regulation of the LDC; or

4. Result in a conflict with adopted environmental plans, including the City MSCP Subarea Plan and the MHPA adopted for the purpose of avoiding or mitigating an environmental effect for the area.

5.1.3 Issue 1: Land Use Plan Conflict

Would the CPU conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project?

Applicable land use plans, policies and regulations for the CPU include the General Plan, SANDAG Regional Comprehensive Plan, SANDAG 2050 Regional Transportation Plan, Brown Field Master Plan and ALUCP and the City's MCSP Subarea Plan. (Consistency with the City's MSCP Subarea plan is discussed under Issue 4, below).

5.1.3.1 Impact Analysis

a. General Plan

The CPU is intended to further express and refine General Plan goals and policies within the CPU area through the provision of site-specific recommendations that implement citywide goals and policies, address community needs, and guide implementation programs and mechanisms, such as zoning. The two documents are meant to work together to establish the framework for growth and development in the CPU area. The CPU contains 10 elements, consistent with the adopted General Plan, each providing community-specific goals and recommendations. As discussed in detail below, these goals and recommendations are consistent with development design guidelines, other mobility and public realm guidelines, incentives, and programs in accordance with the general goals stated in the General Plan.

The CPU would be consistent with the General Plan, which includes the City of Villages Strategy. As with the General Plan, the CPU places an emphasis on directing population growth into mixed-use activity centers that are pedestrian-friendly and linked to an improved regional transit system. The CPU incorporates the City of Villages Strategy by designating two transit-oriented (village) centers along Airway Road, which would serve as the major transit route through the CPU area. The centers would be located within Specific Plan areas, which call for a mix of uses, close to transit, employment, and significant urban uses such as Southwestern College, schools, and a proposed community park.

Land Use Element

The Land Use Element of the CPU contains detailed descriptions and distributions of land uses as they are tailored to the CPU area, establishes five planning districts and two Specific Plan areas with village centers, provides refined residential densities, and sets forth policies for the development of commercial, industrial, and institutional uses. As with the General Plan, the CPU places an emphasis on directing growth into mixed-use activity centers that are pedestrian-friendly and linked to an improved regional transit system, as illustrated through several goals of the CPU Land Use Element, including:

- Distinct villages that include places to live, work and recreate
- A variety of housing types including workforce housing in close proximity to jobs
- Diversified commercial uses that serve local, community and regional needs

Thus, the CPU is consistent with and would implement the goals and policies of the Land Use Element of the General Plan and would apply the City of Villages strategy to the setting and needs of the CPU area.

Mobility Element

The overall goal of the General Plan Mobility Element is to "further the attainment of a balanced, multi-modal transportation network that gets us where we want to go and minimizes environmental and neighborhood impacts." A balanced network is defined by the Element as one in which each mode, or type of transportation, is able to contribute to an efficient network of services meeting varied user needs.

The CPU refines the Mobility Element of the General Plan through community-specific pedestrian, bicycle, transit, streets, goods movement, truck traffic, and regional collaboration recommendations. Consistent with the General Plan Mobility Element, the CPU includes goals and policies that support the development of a multi-modal network and pedestrian-friendly facilities along major roadways and emphasizes a safe bicycle network, including:

- A pedestrian sidewalk and trails network that allows for safe and comfortable walking throughout the community
- An effective transit network that provides fast and reliable service to local and regional destinations
- A complete and interconnected street system that balances the needs of drivers, bicyclists, pedestrians and others
- A bicycle commuter network that links residents to transit, recreational, educational, and employment opportunities within the community

The CPU also includes transit priority measures such as transit lanes, queue jumpers and signal priority measures, which would allow transit to bypass congestion and result in faster transit travel times. The CPU is therefore consistent with the Mobility Element of the General Plan.

Urban Design Element

The General Plan Urban Design Element addresses urban form and design through policies aimed at respecting the natural environment, preserving open space systems

and targeting new growth into compact villages. The Urban Design Element of the CPU supports and implements the General Plan vision relative to urban design at the community-scale by including specific goals, design guidelines and policies for the CPU area including:

- An urban form that reflects the physical land as an amenity and provides an attractive built environment.
- A West Village and Central Village that respect and showcase Spring Canyon.
- Clear, formalized routes that connect villages and major corridors to employment centers, core commercial areas, schools, parks, trails, and transit.
- An urban forest that distinguishes the Districts.
- Attractive gateways at key entrances to the community's district's and villages.

The goals of the CPU implement the Urban Design Element of the General Plan in that they promote the preservation of existing natural features, such as canyons and natural habitat; focus new residential and commercial development with two new compact, mixed-use villages along a transit route; and provide for design features that articulate the unique features of the community.

Economic Prosperity Element

The policies of the General Plan Economic Prosperity Element are intended to improve economic prosperity by ensuring that the economy grows in ways that strengthen our industries, retain and create good jobs with self-sufficient wages, increase average income, and stimulate economic investment in our communities. To ensure that industrial uses, especially those base sector industries supporting the international border economy, remain viable in the CPU area, the CPU Economic Prosperity Element strives to protect and preserve Prime Industrial Lands, provide a transition zone between predominantly industrial and residential areas, promote infill commercial and office development, and encourage the use of local and state programs to incentivize business retention and expansion. The community-specific goals of the CPU Economic Prosperity Element that further express the goals of the General Plan are outlined below.

- Sufficient land and infrastructure capacity for base sector industries to support the international border economy and the greater San Diego region
- Flexibility for industrial, export-oriented businesses to respond quickly to international market competition and demand
- Employment and economic growth through diversified industrial land uses

- Integrated interregional and bi-national activities
- Employment opportunities in Otay Mesa, South County, and Mexico easily accessible to workforce housing
- Commercial uses that support Otay Mesa's industrial community
- Community educational resources to enhance workforce skills and abilities

The goals of the CPU Economic Prosperity Element are consistent with and further implement those of the General Plan relative to economic development and the preservation of industrial land.

Public Facilities, Safety and Services Element

Consistent with the Public Facilities, Services, and Safety Element of the General Plan, the CPU also includes goals to provide and maintain infrastructure and public services for future growth without diminishing services to existing development. Specific policies regarding public facilities financing, public facilities and services prioritization, as well as water, wastewater, storm water, waste management, fire-rescue, police, libraries, schools, public utilities, and healthcare services and facilities, are all included within the CPU.

Recreation Element

The General Plan Recreation Element provides citywide guidance for the preservation, protection, acquisition, development, operation, maintenance, and enhancement of public recreation opportunities and facilities throughout the City for all users. The CPU Recreation Element includes community-specific policies addressing park and recreation guidelines, preservation, accessibility, joint use and cooperative agreements, open space lands and resource based parks. These policies, consistent with the General Plan policies, provide a comprehensive parks strategy for Otay Mesa.

Conservation Element

The CPU Conservation Element builds on the General Plan Conservation Element with policies tailored to conditions in Otay Mesa. The Conservation Element addresses open space and habitat protection, and also contains policies on how to meet the sustainability goals of the General Plan in areas that have been identified as suitable for development. The CPU Conservation Element is also responsive to state legislation calling for greenhouse gas emissions reductions to be achieved in part through coordinated land use and transportation planning, and more sustainable development practices. Therefore, the CPU is consistent with the conservation policies of the General Plan.

Noise Element

The CPU area supports substantial industrial uses, along with major roadways and interstates. The CPU includes goals and policies consistent with the General Plan to guide compatible land uses and the incorporation of noise attenuation measures for new uses, which would protect people living and working in the CPU area from an excessive noise environment. Where possible, the CPU proposes to locate new noise sensitive uses in areas that would avoid or attenuate excessive or harmful noise levels.

As discussed in Section 5.10, Noise, of this PEIR, the CPU has the potential to site noise sensitive uses (i.e., residential) adjacent to noise generating commercial and industrial uses, resulting in potentially significant noise impacts. The framework of federal, state, and local regulations and policies generally would reduce direct and indirect impacts associated with the generation of noise levels in excess of standards established in the General Plan or Noise Ordinance. However, because of the variability of noise sources and the proximity to existing and potential stationary noise sources in the CPU area, it cannot be guaranteed that proposed uses would not expose existing uses to substantial increases in noise levels. Thus, noise attenuation measures must be addressed at the project level.

Likewise, exterior and potentially interior traffic noise impacts are anticipated at the majority of locations adjacent to I-805, SR-905, SR-125, Otay Mesa Road, and Airway Road. Additionally, there are areas within the CPU area where future traffic noise would potentially cause interior noise levels in existing residences to exceed applicable standards. As these may be older residences, which would not have been constructed to achieve current interior noise standards, there is the potential that project traffic may generate noise levels that exceed current standards at these existing residences. While the regulatory framework would provide for the maximum practical noise abatement that can be implemented at the project-level, because of the variability of noise sources and the proximity to existing and potential noise sources in the CPU area, it cannot be guaranteed that proposed uses would not expose existing uses to traffic noise levels in excess of City standards. As described in detail in Section 5.10, impacts related to traffic noise would be significant at the program-level and noise attenuation must be addressed at the project-level.

The CPU includes policy 9.2-2, which requires that projects “demonstrate that required noise levels for individual development projects within Otay Mesa are considered compatible with the General Plan Noise Land Use Compatibility Guidelines.” Therefore, despite the potential for impacts associated with buildout of the CPU to noise sensitive land uses, the CPU would be consistent with General Plan Noise Element Land Use Compatibility Guidelines.

Historic Preservation Element

The General Plan Historic Preservation Element is intended to preserve, protect, restore, and rehabilitate historical and cultural resources throughout the City. The CPU Historic Preservation Element includes specific policies addressing the history and cultural resources unique to Otay Mesa in order to encourage appreciation of the community's history and culture. These polices along with the General Plan policies provide a comprehensive historic preservation strategy for Otay Mesa. The CPU is therefore consistent with the General Plan, relative to historic preservation policy direction.

In summary, the CPU contains 10 plan elements, each providing community-specific goals and recommendations, along with an implementation element. Overall the CPU incorporates goals and policies intended to support the General Plan policies. Therefore, land use impacts would be less than significant.

b. Land Development Code (Zoning) and OMDD

Existing zoning for the CPU area reflects the land use designations of the adopted Community Plan upon which it is based. The CPU would introduce higher density residential and commercial land use designations, as well as several new mixed-use and industrial land use designations not currently reflected in the LDC, including the OMDD. As part of the CPU process, the City would rescind the existing OMDD that currently serves as the CPU area's zoning regulations and replace it with both new and existing zones that would allow for implementation of the new land use designations proposed by the CPU. A rezone of the CPU area and amendments to the LDC are proposed concurrently with the CPU. The new or modified zones that would be adopted within the LDC as part of the CPU are detailed in Section 3.0.

Application of existing, new, or modified zones would accommodate existing development that conforms to the future vision for development within the CPU area, encourage new development projects that are consistent with community goals and character, and implement mixed-use development consistent with the General Plan goals and policies. A description of the proposed land uses and allowed densities are included in Table 3-2.

c. Brown Field Airport Land Use Compatibility Plan

The current ALUCP for Brown Field was adopted in January 2010. Both aircraft noise and overflight of aircraft from Brown Field Municipal Airport affects the CPU area. As shown in Figure 5.1-4, the Brown Field 65 CNEL contour of the ALUCP encompasses the area surrounding the runway corridor, and remains largely within the Brown Field property. It does extend beyond the Brown Field property at both ends of the runway, onto land designated for Industrial uses. Section 5.10 of this PEIR discusses in greater detail the noise effects of the CPU in relation to the Brown Field noise contours.

Generally, land uses considered incompatible inside the 65 CNEL airport contour include residential uses, schools, libraries, nature preserves, and parks and playgrounds. Based on the adopted CNEL noise contours for Brown Field and the ALUCP Land Use Compatibility matrix, no incompatible land uses are proposed by the CPU for areas within the 65 CNEL contour. The CPU would, therefore, be equally compatible with the Brown Field ALUCP and no significant plan inconsistencies between the CPU and Brown Field would occur relative to noise.

The AIA for Brown Field, as shown on Figure 5.1-5, extends well outside the airport property, north into the City of Chula Vista; east into unincorporated San Diego County; south to the international border and west into the Cities of Imperial Beach and National City. The Safety Zones as established by the ALUCP are illustrated on Figure 5.1-6, and also extend to both the east and west outside of the airport property.

The noise and overflight policies and criteria contained in the ALUCP for Brown Field are addressed in the General Plan Noise Element and are implemented by the supplemental development regulations in the Airport Land Use Compatibility Overlay Zone of the San Diego Municipal Code. In order to ensure that future development within the CPU area addresses airport land use compatibility issues consistent with adopted policies and regulations, the CPU Noise Element includes Policy 9.1-1. Policy 9.1-1 states that projects "satisfy all applicable conditions and criteria in the Airport Land Use Compatibility Plan for Brown Field prior to the approval of individual development projects for any proposed building on uses located within the AIA for Brown Field."

Implementation of this policy would ensure that buildout of the CPU area would occur in a manner consistent with the adopted ALUCP for Brown Field and related policies and regulations, and therefore, no land use inconsistency would occur.

d. SANDAG's Regional Comprehensive Plan

The village areas of the CPU would be consistent with the goals of the RCP of compact, walkable communities with transit connections based on smart growth principles, as summarized in Section 5.1.1.2.b above. The CPU proposes to establish pedestrian-oriented, urban and community mixed-use villages that would reduce reliance on the automobile and promote walking and use of alternative transportation. The CPU supports the multi-modal strategy of the RCP through the designation of two high-density mixed-use villages along a rapid bus transit corridor. Transit is proposed along Airway Road, which would connect the villages, activity centers, and employment centers. Also, dedication of transit right-of-way and application of transit-oriented development design principles would support increased transit use and facilitate the implementation of future rapid bus transit and express transit stations. Policies contained within the CPU Chapter 2.0, Land Use, and Chapter 3.0, Mobility, serve to promote bus transit use, as well as other forms of mobility, including walking and bicycling. These measures are consistent with the RCP's smart growth strategies.

No significant adverse environmental effects would result from the adoption of the CPU in terms of consistency or conflict with the RCP.

e. SANDAG's 2050 Regional Transportation Plan

The CPU is consistent with the intent of RTP in that it facilitates the development of a regional employment and housing center, which would maximize density and transit opportunities, an important goal of the RTP (see Section 5.1.1.2.b). Proposed land use designations would allow for a concentrated mix of high density residential, retail, and office and industrial uses around transit centers and along major transportation corridors that would help to maximize use of transit and to reduce long commutes.

The 2050 RTP identifies a bus rapid transit corridor called the South Bay BRT. The CPU would provide a rapid and reliable transportation alternative, connecting downtown San Diego and the Otay Mesa POE, as shown in Figure 3-4. This new BRT would provide access to regional employment centers in downtown San Diego, Otay Mesa, and the future Chula Vista Eastern Urban Center, as well as serve residential communities in Chula Vista and National City. Implementation of the CPU would, therefore, relieve traffic congestion in a major transportation corridor. Airway Road would serve as the principal community transportation and activity corridor The transit route proposed to travel along Airway Road would link villages, employment centers, and Southwestern College within Otay Mesa. Consistency with the RTP is important to the CPU in so far as regional discretionary funding would be made available to jurisdictions that implement the vision of the 2050 RTP. As a result of consistency with the RTP, the City would be eligible for additional funding to help achieve the mobility improvement goals identified throughout the CPU Mobility Element.

No significant adverse environmental effects would result from the adoption of the CPU in terms of consistency or conflict with the RTP.

5.1.3.2 Significance of Impacts

a. Local Plans Consistency

The goals, policies, and programs of the CPU are consistent with existing applicable local land use plans, policies and regulations. As discussed above, the CPU land use plan designates two community villages close to transit, employment, and other significant urban uses, which is consistent with the General Plan and the City of Villages strategy. Similarly, the CPU would concentrate industrial and non-residential uses in the eastern portion of the CPU area to ensure that residential uses are buffered from the existing and potential future industrial uses that have existed and are planned to continue within Otay Mesa. Furthermore, as discussed in detail in Section 5.1.3.1.a, the policies developed for the CPU associated with each of the 10 elements were drafted in a manner that is consistent with the General Plan, supporting diversity of development

within the community, provision of infrastructure concurrent with need, and with an emphasis on the protection of existing natural resources and landforms and sensitive habitat within the CPU area. As such, impacts would be less than significant with adoption of the CPU.

As discussed in Section 5.1.3.1, the City would rescind the existing OMDD that serves as the CPU area's zoning regulations and replace it with LDC Citywide zones that would include new and revised zoning to accommodate existing desirable uses and encourage future development consistent with the CPU. This LDC amendment would ensure consistency with the proposed land use plan. The CPU also features transit-oriented uses intended to encourage greater transit and other alternative modes of transportation to reduce congestion and parking demand. Impacts would therefore be less than significant.

The CPU would be consistent with the adopted ALUCP for Brown Field. Both the General Plan and the Municipal code provide policies for land use compatibility that would be implemented for future development. The CPU also would require all future development proposals to demonstrate consistency with the adopted ALUCP. Impacts would therefore be less than significant.

b. Regional Plan Consistency

The CPU incorporates the multi-modal strategy of both the RCP and RTP through the designation of two high-density mixed-use villages along a BRT corridor. In addition, the CPU includes policies related to land use, mobility, and circulation/transportation that promote the RCP's smart growth strategies. As such, no inconsistencies have been identified, and impacts would be less than significant.

5.1.3.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

5.1.3.4 Significance after Mitigation

Impacts would be less than significant; therefore, no mitigation is required.

5.1.4 Issue 2: Land Use Compatibility

Would the collocation of residential and industrial land uses and/or conversion of industrial to residential land uses, proposed as part of the CPU, create land use incompatibilities or result in physical changes as a result of precluding achievement of regional economic development objectives/policies for industrial development?

5.1.4.1 Impacts

The General Plan Economic Prosperity Element, defines collocation as "…the geographic integration of residential uses or other non-industrial uses into industrial uses located on the same premises." The discussion below addresses the issue of collocation as defined in the General Plan, as well as the issue of residential-industrial adjacency, where residential and industrial land uses would be located adjacent to one another, but not necessarily on the same premises. The issues of concern regarding collocation pertain to the potential land use incompatibility and interface issues that arise due to different thresholds of noise, air quality, odor, aesthetics, traffic, and public health and safety for residential versus industrial use.

Conversion is defined as a change in land use of industrially designated land to residential or other non-industrial uses. The issues of concern regarding conversion of industrial lands pertain to the potential direct and indirect environmental effects that may result from the loss or conversion of industrial designated land.

a. Collocation

Three locations within the CPU area would include the interface of industrial and residential uses, as shown in Figure 3-2. In the first location, a small area of medium density residential (within the Northwest District) would be adjacent to a larger tract of light industrial designated land (within the Airport District). The approximately 10-acre site that includes the residential, commercial, and industrial uses has been through the permit process, and the project area has been designed to minimize interaction between the residential and industrial uses. The light industrial development would occur on the rear lot with access for trucks provided on the south side of the project area, helping to separate the use and associated activities from the commercial and residential uses. No impacts relative to collocation would occur in this location.

The second residential-industrial interface area within the CPU area would occur between the Central District and the South District. As shown in Figure 3-2, in this location the Central Village Specific Plan Area would be located west of land designated for industrial uses (business park), and separated by Cactus Road. The Central Village also would be located north of a heavy industrial designated area, separated by Siempre Viva Road and Spring Canyon. Future occupants of the residential uses within this residential-industrial interface area would potentially experience adverse effects due to noise, aesthetic/visual incompatibility, air pollution, odor, truck traffic, or hazardous materials exposure, from the adjacent industrial areas.

To avoid or reduce potential impacts associated with the collocation of residential and industrial uses, the CPU generally focuses lighter, more residentially-compatible industrial uses adjacent to multi-family residential areas, while locating heavier, less residentially-compatible categories of industrial uses to the south and southeastern

edges. The CPU also includes policies, specified below, that would seek to alleviate issues associated with collocation of industrial and residential uses. A Specific Plan would be prepared for the Central Village area, and will contain more detailed land use designations for the village area. It is anticipated that transitional land uses, such as commercial uses, and also landscaping, parking, and set backs would occur in the interface area and that the residential uses would then be separated from industrial uses. Additionally, the Otay Mesa CPIOZ would apply to the areas designated for industrial uses. The CPIOZ would ensure consistency of all future development within these areas with CPU direction and policy, including otherwise future ministerial projects.

The third area subject to potential issues related to collocation would be development within the Business Park-Residential permitted land use category. The area designated Business Park Residential Permitted would be placed into a Community Plan Implementation Overlay Zone (CPIOZ) that, along with the CPU would regulate development within the land use designation. The CPU would allow for the collocation of residential and industrial uses within the CPIOZ. This Business Park-Residential designation would only be applied in one location, at the northwest corner of the intersection of Britannia and Airway Roads, south of SR-905. Residential uses adjacent to industrial areas would potentially be affected by: noise from adjacent industrial uses in excess of General Plan land use-noise compatibility standards; negative community visual character caused by disproportionate bulk, height or design of industrial structures; roadway congestion and mobility hazards due to industrial truck traffic, and increased health risks due to industrial air pollutants and hazardous materials use, storage, waste disposal, and transport.

To avoid or reduce potential impacts associated with the collocation of residential and industrial uses within the Business Park-Residential Permitted, zoning would restrict the industrial uses to generally office and research, with manufacturing limited to prototype assembly of new products; no heavy industrial uses would be permitted. Additionally, the CPIOZ would limit the amount of residential use to a maximum of 49% of the area of the CPIOZ and require that the lot area, lot dimensions, floor area ratio, and setbacks be in accordance with the IP-3-1 zone. The CPU also includes policies, specified below, that would alleviate issues associated with collocation of business park and residential uses.

Various policies contained within the CPU serve to limit incompatibilities at the interface between residential and industrial uses and to promote both a desirable residential community and opportunities for continuing industrial development. Consistent with the General Plan Economic Prosperity Element and its Residential and Industrial Collocation and Conversion Policies, the CPU seeks to minimize land use conflicts and to preserve the most important types of industrial land within the CPU area. Preparation of the CPU considered citywide economic prosperity goals and, based upon a comprehensive evaluation of the General Plan's collocation/conversion suitability factors (see

Appendix C, EP-2 of the General Plan), developed the land use plan and identified several design and siting policies to be included in the CPU, applicable to future development. These policies and design guidelines for residential-industrial interface areas include:

2.2-4 Provide adequate buffer uses/distance separation for residential proposals within a quarter mile of industrial uses with hazardous or toxic substances.2.4-2 Provide adequate land use buffers and/or distance separation from residential uses for heavy industrial proposals with hazardous or toxic substances

a. Consider office, commercial, retail and parking uses as acceptable buffer uses within the village freeway interface area.

b. Locate schools, parks and libraries outside of interface areas. (see Section 5.3 Air Quality for details about facilities and buffer distances)

c. Determine distance separation on a case by case basis based on an approved study submitted by an applicant, or if no study is prepared, provide a 1000-foot minimum distance separation.

d. Apply the buffer to sensitive receptors located along the Mexican Border.

2.4-3 Reduce or mitigate the environmental and negative impacts of Heavy Industrial uses on surrounding areas, such as noise, visual, and air quality impacts. Consider design elements that include, but are not limited to, landscape, site orientation, fencing, and screening.

2.4-4 Maintain the Light Industrial land use designation for the development of light manufacturing, distribution and storage uses, while providing adequate buffers, such as distance, landscape, berms, walls and other uses, where adjacent to open space, residential development, and educational facilities.

2.4-7 Allow for a wide range of businesses that do not negatively impact sensitive receptors to locate in the Business Park and areas adjacent to parks and village areas.

a. Provide adequate buffers, such as distance, landscape, berms, walls and other uses, where adjacent to public parks and village areas.

2.4-8 Allow office, research and development, and optional residential uses in the Business Park-Residential Permitted area.

a. Allow optional residential uses with proposals that conform to APCD and HAZMAT adjacency guidelines and regulations.

b. Implement proposals with optional residential uses with Business Park Residential Permitted CPIOZ, where the residential use does not exceed 49% percent of the contiguous are with the Business Park, Residential Permitted, and the density range for the multifamily residential uses is 15-44 dwelling units per acre.

2.4-9 Provide adequate buffers, such as land uses, landscape, walls, and distance between the residential component of the Business Park Residential Permitted lands, SR-905, and Britannia Boulevard to minimize negative impacts air quality, noise, and of truck transportation on residents.

4.1-9 Create a visual and distance separation between the public right of way and industrial uses such as auto dismantling, truck transportation terminals, and other uses that create noise, visual, or air quality impacts. Screen building and parking areas by using a combination of setbacks, swales, fencing, and landscape. Encourage buffer areas that use appropriate screening.

4.1-17 Require a distance separation, which may include landscape treatments, parking, sidewalks and street right-of-way, between the IBT and Heavy Industrial uses of the South District and the village and educational facilities of the Central District.

4.2-2 Incorporate connectivity and walkability in the design of the street network.

a. Apply traffic-calming techniques that address vehicular/truck and pedestrian movements where the truck routes are adjacent to village and park uses.

4.5-8 Create a visual buffer between Heavy Industrial sites and public streets, public facilities, and open space.

a. Create a berm within the setbacks facing the public right of way.

b. Place a masonry wall along the berm, with variation breaks for articulation.

c. Include a landscape buffer between the sidewalk or street and the berm and wall for additional screening.

d. Require street trees from Appendix B, the Street Tree Plan for Otay Mesa.

7.1-12 Site the Grand Park at the southwestern corner of Cactus Road and Airway Road

a. Site the Grand Park beyond any buffer areas for industrial to the east and south.

In addition to the CPU policies stated above, to avoid potential land use conflicts, protect the health, safety and welfare of residents and users, and ensure favorable conditions for business and industry, the CPU also includes special Residential-Industrial Interface

performance standards within the Land Use Element. Design considerations also are provided in the Urban Design Element, which specify special building orientation, facade treatments, landscaping and screening policies for industrial uses. Proposed zoning also would regulate for outdoor and storage areas, truck loading, location and operation of machinery, interior noise, and shared parking.

In addition to policies contained within the CPU and General Plan that address collocation and the residential-industrial interface issues, certain City, state, and federal regulations also impose mandatory controls on industrial and residential land uses. For example, the City Noise Ordinance includes thresholds for exterior noise levels that cannot be exceeded at the edge of property lines for given land uses. These standards are mandatory and are enforced through the building permit and development approval process. Violations of the City Noise Ordinance are resolved through the City's Police Department and Neighborhood Code Compliance Division of the Development Services Department, which serve to ensure that noise standards are observed.

An extensive network of local, state, and federal laws governs the handling of hazardous materials, including the siting of facilities that use hazardous materials; the transport of hazardous materials by interstate and cross-border trucks; the identification, reporting, and cleanup of any hazardous spills or leaks; and implementation of an emergency evacuation and response plan.

Air pollutant emissions are also heavily regulated by local, state, and federal authorities and industries must comply with mandatory air quality thresholds, including the requirement that industries monitor air emissions quality. These are further discussed in Section 5.3 of this PEIR.

In summary, through the implementation of General Plan and CPU policies, as well as strict compliance with local, state and federal regulations, impacts associated with the collocation of the residential and industrial land uses would be less than significant.

b. Conversion

The CPU would redesignate land currently designated for industrial use to residential, mixed residential-commercial, and institutional uses. Generally, the adopted community plan designates industrial parks/light industrial for the entire eastern two-thirds of the CPU area, excluding Brown Field, the Otay Mesa POE, and two commercial subdistricts centered on SR-905 immediately north of the POE and further west at the intersection of La Media Road. The industrial designated land of the adopted community plan equals approximately 2,839 acres and coincides with the existing OMDD boundary (City of San Diego 2011a).

Implementation of the CPU would result in the conversion of existing industrial lands within the CPU area to non-industrial uses, primarily residential and mixed-use

residential-commercial and institutional uses. The conversion of existing industrial land to residential, commercial and institutional uses would occur within the Central Village specific planning area. Some existing agricultural lands also would be converted to residential, mixed and institutional land uses, primarily within the Central Village specific planning area. Changes in land use would, however, occur gradually over time, as development consistent with the CPU is approved and constructed. Therefore, during buildout of the CPU, the development of non-industrial uses next to existing industrial operations may occur, as described above under "Collocation".

Chapter 5.6, Human Health/Public Safety/Hazardous Materials identifies numerous existing sites within the CPU area that store, utilize, or transport hazardous materials. Conversion of industrial lands to mixed residential uses would result in the placement of a greater number of people, particularly full-time residents, in proximity to the hazardous sites. Also, hazardous materials sites were identified in conjunction with existing agricultural operations. Conversion of these sites to non-agricultural uses could potentially expose future residents or occupants to hazards conditions.

Numerous local, state, and federal laws govern the use of hazardous materials, including the siting of facilities that use hazardous materials; the transport of hazardous materials by interstate and cross-border trucks; the identification, reporting, and cleanup of any hazardous spills or leaks; and implementation of an emergency evacuation and response plan. The impacts of the conversion of some existing industrial and agricultural lands to other uses would be evaluated on a case-by-case basis as future projects are proposed for development in former industrial or agricultural areas. As discussed in Section 5.6, Hazards, impacts associated with hazardous material sites would be reduced to less than significant through the application of the development review procedures and site-specific environmental review in accordance with CEQA.

5.1.4.2 Significance of Impacts

a. Collocation

The CPU would place residential and industrial uses in proximity to one another, which would have potential impacts associated with the collocation or interface of incompatible land uses as described above. Land use incompatibility would be associated with the different thresholds for noise, air quality, odor, visual quality, traffic and heavy truck mix, and hazardous materials risks for industrial versus residential use. The CPU contains policies and performance standards to avoid and/or reduce potential impacts associated with collocation of diverse land uses. Future development projects would be required to comply with the collocation policies of the General Plan and CPU, which are necessary to reduce or avoid potential land use incompatibility impacts (including noise, odor, air quality, traffic, parking, trucks, hazardous materials), and which would include but not be limited to the special policies and performance standards for residential-industrial

interface areas, truck circulation, and industrial design, as well as the relevant and mandatory city, state, and federal controls on industrial and residential land uses. Compliance with the CPU and General Plan policies, along with local, state and federal regulations, would reduce potential impacts of collocation to below a level of significance.

b. Conversion

The CPU would entail the conversion of industrial and agricultural lands to residential and other mixed uses. The environmental effects that would result include the increased potential for exposure of sensitive receptors to hazardous materials. Through implementation of the measures identified in Section 5.6, the potential environmental impacts resulting from change in land use designations in accordance with the CPU would be less than significant.

5.1.4.3 Mitigation Framework

a. Collocation

Impacts would be less than significant; therefore, no mitigation is required.

b. Conversion

Impacts would be less than significant; therefore, no mitigation is required.

5.1.4.4 Significance after Mitigation

Impacts would be less than significant; therefore, no mitigation is required.

5.1.5 Issue 3: Regulation Consistency

Would the CPU result in a conflict with the purpose and intent of the ESL Regulations, the Historical Resources Regulations, and the Brush Management Regulations of the LDC?

5.1.5.1 Impact Analysis

a. Environmentally Sensitive Lands Regulations

Within the CPU area, ESLs include sensitive biological species and habitats, vernal pools and other wetlands, floodplains, and steep hillsides. Any f development within the CPU area that would encroach into ESL resources would be subject to the development restrictions of the ESL Regulations (Land Development Code, Section 143.0101 et. seq.).

The ESL Regulations do not allow development of any parcel entirely within the MHPA to exceed 25 percent of the parcel, with 75 percent required to remain as open space. Additionally, development would be directed toward the least biologically sensitive portion of the parcel. The Steep Hillside Guidelines of the ESL Regulations also state that development of steep hillsides outside of the MHPA is only allowed when necessary to achieve a maximum development area of 25 percent of the premises. For areas outside of the MHPA, the ESL does not limit development encroachment into sensitive biological resources, with the exception of wetlands and listed non-covered species habitat and narrow endemics. However, impacts would be evaluated and mitigation, provided in conformance with Section III of the City's Biology Guidelines. Non-covered species are species listed or proposed for listing by federal or state governments as rare, endangered, or threatened. These may not be considered adequately conserved under the MSCP/MHPA. Sections 143.0145 and 143.0146 of the ESL Regulations contain updated development regulations for projects within Special Flood Hazard Areas (SFHAs). All future projects located within the 100-year flood hazard area as identified in a project-specific drainage study, would be subject to the CPIOZ, which would ensure discretionary review of all future development within this area. The ESL Regulation further requires that each project must be studied to determine the effects to base flood elevations and ensure they would not result in flooding, erosion, or sedimentation impacts on or off-site. This is further addressed in Section 5.7, Hydrology/Water Quality.

Due to the presence of resources affected by the ESL regulations, future development with the CPU area would be required to comply with the provision to minimize impacts to environmentally sensitive lands to the maximum extent practicable. The identification of specific ESL resource locations and compliance with development encroachment allowances would be conducted at the project-level, through the Site Development Permit process. If it is determined that proposed future development does not comply with the ESL encroachment allowances, a deviation would be requested and may be granted by the City if certain findings are made.

The CPU also includes several policies which aim to reduce the impacts of future development to sensitive resources covered under the City's ESL regulations. These policies include:

8.1-1 Implement the Environmentally Sensitive Lands ordinance related to biological resources and steep slopes for all new development.

8.1-2 Preserve a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability.

8.1-3 Plan development to minimize grading and relate to the topography and natural features of Otay Mesa.

b. Historical Resources

The Historical Resources Regulations (Section 143.0213(a) of the LDC) apply when historical resources are present. As defined by the HRR, historical resources include: historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. Based on results of several site-specific cultural resources surveys conducted for the CPU Circulation Element roadway improvements, regional surveys conducted as part of past inventories, record search results for the CPU, numerous historical resources are known to occur throughout the CPU area. Specifically, several designated historic structures are located within the Brown Field Historic District just south of the landing strip within the Brown Field Municipal Airport. Another designated resource is the remains of the Alta School Site which is located just outside of the Brown Field property on the north side of Otay Mesa Road. Based on information the information noted above, there is a potential for unknown, historical (archaeological) resources to be encountered as a result of future development implemented in accordance with the CPU.

Due to the presence of historical resources in the CPU area, the following policies relative to the preservation of historical resources are included:

10.1-1 Require archaeological surveys and consultation with interested Native Americans as part of future development within Otay Mesa.

10.1-2 Consider eligible for listing on the City's Historical Resources Register any significant archaeological or Native American cultural sites that may be identified as part of future development within Otay Mesa.

10.1-3 Consider eligible for listing on the City's Historical Resources Register any structure or site from the agricultural era that may be discovered as part of future development within Otay Mesa.

10.1-4 Consider eligible for listing on the City's Historical Resources Register any buildings associated with early military and flight activities of the community that may be identified as part of future development within Otay Mesa.

Impacts from future development on historical resources in the CPU area would occur at the project level. Any grading, excavation, and other ground-disturbing activities associated with future development implemented in accordance with the CPU that would affect significant archaeological sites or TCPs would represent a significant impact to historical resources. It should be noted, however, that future development in areas designated for commercial and industrial uses on properties that have not been previously graded, or have been graded but have not otherwise developed, would be subject to review in accordance with the supplemental regulations for CPIOZ Type A (ministerial). These project types that are consistent with the CPU, base zone

regulations, and the supplemental regulations for CPIOZ Type A and can demonstrate that there are no archaeological resources present on the project site can be processed ministerially and would not be subject to further environmental review under CEQA. This requires submittal of an Archaeological Survey prepared by a qualified archaeologist in accordance with the City's Historical Resources Guidelines. Development proposals that do not comply with the CPIOZ Type A supplemental regulations would be subject to discretionary review in accordance with CPIOZ Type B and the Mitigation Framework for Historical Resources, contained in Section 5.5.

c. Brush Management Regulations

The City's Brush Management Regulations are intended to minimize wildland fire hazards through implementation of prevention activities and programs. Compliance with the Brush Management Regulations would be accomplished at the future project level through the development or construction permit process. Generally, brush management is required in all base zones on publicly or privately owned premises that are within 100 feet of a structure and contain native or naturalized vegetation. In consideration of the topography, existing and potential fuel load, and other characteristics of a site related to fire protection, the Fire Chief may, however, modify the requirements of Section 142.0412, and where applicable, with the approval of the Building Official, may require building features for fire protection in addition to those required in accordance with Chapter 14, Article 5, Division 7 and Chapter 14, Article 9, Division 3 of the LDC. Therefore, all subsequent projects within the CPU area would be required to comply with the Brush Management Regulations, or alternative measures as approved by the Fire Chief; therefore, no conflict with the Brush Management Regulations, or the equivalent, would occur, resulting in increased wildland fire hazard risk within the CPU area. Impacts would be less than significant.

5.1.5.2 Significance of Impacts

a. Environmentally Sensitive Lands Regulations

The development footprint of the CPU would encroach into sensitive ESL areas. Future public and private development proposals would be required to comply with the ESL Regulations or process a Site Development Permit in order to deviate from the regulations. Additionally, all subsequent projects would be subject to review in accordance with CEQA. At which time, appropriate site-specific mitigation in accordance with the Mitigation Framework measures LU-2 and BIO-1 through BIO-5-4 would be identified for impacts to sensitive biological resources covered under the ESL. For other resource areas covered under the ESL Regulations, such as steep hillsides and floodplains, future projects would be designed to ensure compliance with the supplemental regulations and any other regulatory requirements to ensure that no impacts would occur. The CPU also includes several policies (see Table 5.4-5) which

aim to reduce impacts to sensitive and other resources covered under the ESL Regulations as well as development regulations required for projects within areas covered by CPIOZ Type A, which address sensitive biological resources. Future projects would be required to comply with the above regulations, policies, and mitigation. Therefore, at the program-level the CPU would not be in conflict with the purpose and intent of the ESL regulations and potential impacts would be below a level of significance.

b. Historical Resources Regulations

Given the presence of historical resources distributed throughout the CPU area, implementation of the CPU has the potential to result in significant impacts to historical resources. The CPU includes several policies aimed to reduce impacts to historical resources within the CPU area as well as development regulations required for projects within areas covered by CPIOZ Type A which address archaeological resources. Additionally, incorporation of the mitigation framework for historical resources contained in Section 5.5 would reduce the potential for significant impacts at the project-level.

c. Brush Management Regulations

Implementation of the CPU would require compliance with the City's Brush Management Regulations. Compliance with the Brush Management Regulations, or equivalent protection measures, as approved by the Fire Chief, would be accomplished at the project level as part of the development review and permit approval process. No conflict with the Brush Management Regulations, or the equivalent, would occur, resulting in increased wildland fire hazard risk within the CPU area. Impacts would be less than significant.

5.1.5.3 Mitigation Framework

a. Environmentally Sensitive Lands Regulations

LU-1a: Future development project types that are consistent with the CPU, base zone regulations, and the supplemental regulations for CPIOZ Type A and can demonstrate that there are no biological resources present on the project site can be processed ministerially and would not be subject to further environmental review under CEQA. Development proposals that do not comply with the CPIOZ Type A supplemental regulations shall be subject to discretionary review in accordance with CPIOZ Type B and the Mitigation Framework LU-2 and BIO 1-4 in Section 5-4, Biological Resources.

b. Historical Resources Regulations

LU-1b: Future development project types that are consistent with the CPU, base zone regulations, and the supplemental regulations for CPIOZ Type A and can demonstrate that there are no archaeological resources present on the project site can be processed ministerially and would not be subject to further environmental review under CEQA. Development proposals that do not comply with the CPIOZ Type A supplemental regulations shall be subject to discretionary review in accordance with CPIOZ Type B and the Mitigation Framework HIST-1 in Section 5-5, Historical Archaeological Resources.

c. Brush Management Regulations

Impacts would be less than significant; therefore, no mitigation is required.

5.1.5.4 Significance after Mitigation

Potential impacts to environmentally sensitive lands and historical resources associated with future development would be significant. However, future projects would be required to comply with ESL and Historical Resources Regulations, the CPU policies, Mitigation Framework, and the City's Biology and Historical Resources Guidelines.

Additionally, all future projects would require subsequent environmental review and compliance with established development regulations, guidelines, and Mitigation Framework which would serve to reduce impacts to below a level of significant at the program-level. Therefore, the program-level environmental impacts related to CPU conflicts with the ESL and HRR regulations would be mitigated to below a level of significance.

5.1.6 Issue 4: Environmental Plan Consistency

Would the CPU result in a conflict with adopted environmental plans, including the City of San Diego's MSCP Subarea Plan and the MHPA adopted for the purpose of avoiding or mitigating an environmental effect for the area?

5.1.6.1 Impact Analysis

The CPU incorporates Policies 8.1-1, 8.1-2, 8.1-4, 8.1-5, and 8.1-6, as shown in Table 5.1-13, related to consistency with the MSCP Subarea Plan and other local, regional, and state conservation plans. As discussed below, future development located adjacent to the MHPA has the potential to conflict with the MSCP Subarea. Potential impacts to vegetation communities, sensitive species, and wildlife corridors as they relate to the MSCP are addressed in Section 5.4, Biological Resources.

TABLE 5.1-13
CPU CONSERVATION ELEMENT POLICIES

Number	Policy
8.1-1	Implement the Environmentally Sensitive Lands ordinance related to biological resources and steep slopes for all new development.
8.1-2	Preserve a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability.
8.1-4	Implement the MSCP Management Policies and Directives for Otay Mesa through the project review process.
8.1-5	Implement City regulations and Biology Guidelines for preservation, acquisition, restoration, management and monitoring of biological resources.
8.1-6	Implement Area Specific Management Directives and Conditions of Coverage as stated in Table 3-5 of the MSCP Subarea Plan for Species protected in Otay Mesa and identified in Table 8-1.

a. MHPA

As designated in the Subarea Plan, the MHPA is the permanent preserve area for habitat conservation. Overall, the Otay Mesa MHPA was configured to support sensitive habitats and significant populations of Subarea Plan covered species known to exist at that time.

The CPU is consistent with the designated MHPA preserve area. Several roads included in the CPU Mobility element would be within or cross the MHPA. The MSCP limits roads in the MHPA to those identified in a community plan circulation/mobility element as collector streets essential for area circulation, and necessary maintenance/emergency access roads. Consistent with the MSCP, the CPU does not propose any new local streets within the MHPA. The MSCP provides additional policies relating to the construction of roads to minimize impacts and fragmentation of sensitive species and habitat.

Compatible land uses are outlined in Section 1.4.1 of the MSCP Subarea Plan include: (1) existing uses, (2) public access and recreation, (3) infrastructure, scientific and biologic activities, and (4) emergency, safety and police services. The MSCP provides specific requirements relating to the implementation of these allowed uses. All activities must be consistent with the MSCP Subarea Plan. Impacts from these compatible uses would be determined at the project-level and would require subsequent environmental review.

Boundary Adjustments

MHPA boundary adjustment(s) may be proposed as part of future development within the CPU area. The City's MSCP allows for adjustments to the MHPA boundary without

the need to amend the MSCP Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. Six functional equivalency criteria in accordance with the Final MSCP Plan, Section 5.4.2 must be prepared as part of the MHPA boundary adjustment equivalency analysis. Any MHPA boundary adjustments would require concurrence from the Wildlife Agencies. Any MHPA boundary adjustments and functional equivalency analysis would be addressed at the time future development proposals are brought forward pursuant to the adopted CPU. Potential impacts to MHPA preserve configuration as a result of MHPA boundary adjustments would not be considered significant, because the adjustment must meet the required MHPA equivalency analysis criteria and obtain approval from the Wildlife Agencies. Potential impacts to sensitive vegetation and species would be analyzed and mitigated consistent with Mitigation Framework measures BIO-1 (uplands) through BIO-4 (wetlands) further detailed in Section 5.4, Biological Resources.

MHPA Land Use Adjacency Guidelines

The MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. When land is developed adjacent to the MHPA, there is a potential for secondary impacts that may degrade the habitat value or disrupt animals within the preserve area. These secondary effects of project development may include habitat insularization, drainage/water quality impacts, lighting, noise roadkill, exotic plant species, nuisance animal species, and human intrusion. These impacts could be short-term resulting from construction activities, or long-term. Short-term construction impacts could result in disruption of nesting and breeding thus affecting the population of sensitive species. To address these concerns, the MSCP includes a set of MHPA Land Use Adjacency Guidelines that are to be evaluated and implemented at the project-level.

Indirect effects can occur wherever development and human activity is adjacent to natural areas. These effects include those due to increased runoff, trampling and removal of plant cover due to hiking, biking and other human activities, increased presence of toxins, increased nighttime light levels, and redirection or blockage of wildlife movement, increased levels of non-native and invasive plants. These indirect effects could reduce the quality of the MHPA. Future projects implemented in accordance with the CPU which are within and/or adjacent to the MHPA would be required to incorporate the MHPA Land Use Adjacency Guidelines (see Mitigation Framework measure LU-2 below) into the design of projects in order to reduce potential indirect impacts to the preserve from new development.

Future development proposals would be required to address indirect impacts and incorporate the MHPA Land Use Adjacency Guidelines. However, as implementation of the CPU would introduce land uses adjacent to MHPA, this is a potentially significant impact at the program-level.

b. Specific Management Directives for Otay Mesa

The MSCP envisions "a network of open and relatively undisturbed canyons containing a full ensemble of native species which provide functional wildlife habitat and movement capability." Specific Management Directives are aimed at carrying out this vision and include measures to protect sensitive species, limit access into the canyons, provide wildlife crossing under Otay Mesa Road/SR-905, and address regeneration and restoration. The CPU would be does not conflict with the visions on the MSCP Subarea Plan and is consistent with the vision of the Otay Mesa MHPA; therefore, there are no significant, direct impacts anticipated to the MHPA.

5.1.6.2 Significance of Impacts

a. MHPA

Boundary Adjustments

Future development implemented in accordance with the CPU may propose an adjustment(s) to the MHPA boundary, thus removing MHPA preserve in some locations and adding MHPA preserve in other locations. Provisions in the MSCP Subarea Plan require that any modification to the MHPA boundaries result in equal or better biological values; therefore, boundary adjustments associated with future development would not result in significant direct or indirect impacts associated with environmental or habitat conservation plans. Potential impacts to the MHPA preserve configuration as a result of MHPA boundary adjustments would be considered less than significant, because the adjustment must meet the required MHPA boundary line equivalency criteria and obtain approval from the Wildlife Agencies. Potential impacts to sensitive vegetation and species would be analyzed and mitigated consistent with Mitigation Framework measures BIO-1 through BIO-4.

MHPA Land Use Adjacency Guidelines

Potential indirect impacts would be evaluated at the project-level for consistency with the MHPA Land Use Adjacency Guidelines. Implementation of the CPU would introduce land uses adjacent to MHPA which would potentially result in a significant impact at the program-level.

b. Specific Management Directives for Otay Mesa

The CPU would not be in conflict with the MSCP Subarea Plan and is consistent with the vision for the Otay Mesa MHPA as the open space network would remain intact, and the CPU incorporates policies for adhering to the Management Directives. No significant impacts relating to MSCP consistency would occur.

5.1.6.3 Mitigation Framework

a. MHPA

Mitigation for direct impacts to sensitive vegetation, wetlands and vernal pools from construction of community plan circulation/mobility element roads, collector streets essential for area circulation, and necessary maintenance/emergency access roads within the MHPA shall be accomplished with implementation of Mitigation Framework measures BIO-1 through BIO-4.

Boundary Adjustments

Potential impacts to MHPA preservation configuration as a result of MHPA boundary adjustments shall be addressed through the required MHPA Boundary Line equivalency analysis. Impacts would be less than significant; therefore, no mitigation is required.

MHPA Land Use Adjacency Guidelines

MHPA adjacency impacts would be addressed at the project-level. Projects adjacent to the MHPA would incorporate features into the project and/or permit conditions that demonstrate compliance with the MHPA Land Use Adjacency Guidelines. To ensure avoidance or reduction of potential MHPA impacts resulting from new development adjacent to the MHPA, the following Mitigation Framework measures shall be required for all future projects as part of the subsequent environmental review and development permit processing:

LU-2: All subsequent development projects implemented in accordance with the CPU which is adjacent to designated MHPA areas shall comply with the Land Use Adjacency Guidelines of the MSCP in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Mitigation measures include, but are not limited to: sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA, and berms or walls adjacent to commercial or industrial areas and any other use that may introduce construction noise or noise from future development that could impact or interfere with wildlife utilization of the MHPA. The project biologist for each proposed project would identify specific mitigation measures needed to reduce impacts to below a level of significance. Subsequent environmental review would be required to determine the significance of impacts from land use adjacency and compliance with the Land Use Adjacency Guidelines of the MSCP. Prior to approval of any subsequent development project in an area adjacent to a designated MHPA, the City of San Diego shall identify

specific conditions of approval in order to avoid or to reduce potential impacts to adjacent the MHPA.

Specific requirements shall include:

- Prior to the issuance of occupancy permits, development areas shall be permanently fenced where development is adjacent to the MHPA to deter the intrusion of people and/or pets into the MHPA open space areas. Signage may be installed as an additional deterrent to human intrusion as required by the City.
- The use of structural and nonstructural best management practices (BMPs), including sediment catchment devices, shall be required to reduce the potential indirect impacts associated with construction to drainage and water quality. Drainage shall be directed away from the MHPA or, if not possible, must not drain directly into the MHPA. Instead, runoff shall flow into sedimentation basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA. Drainage shall be shown on the site plan and reviewed satisfactory to the City Engineer.
- All outdoor lighting adjacent to open space areas shall be shielded to prevent light over-spill off-site. Shielding shall consist of the installation of fixtures that physically direct light away from the outer edges of the road or landscaping, berms, or other barriers at the edge of development that prevent light over spill.
- The landscape plan for the project shall contain no exotic plant/invasive species and shall include an appropriate mix of native species which shall be used adjacent to the MHPA.
- All manufactured slopes must be included within the development footprint and outside the MHPA.
- All brush management areas shall be shown on the site plan and reviewed and approved by the Environmental Designee. Zone 1 brush management areas shall be included within the development footprint and outside the MHPA. Brush management Zone 2 may be permitted within the MHPA (considered impact neutral) but cannot be used as mitigation. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area shall be the responsibility of a homeowners association or other private party.
- Access to the MHPA, if any, shall be directed to minimize impacts and shall be shown on the site plan and reviewed and approved by the Environmental Designee.

- Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures shall include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement shall be incorporated into leases on publicly owned property as leases come up for renewal.

b. MSCP Specific Management Directives for Otay Mesa

Future projects would be required to implement the MSCP Specific Management Policies and Directives for Otay Mesa as discussed in 5.4.2. Therefore, impacts would be below a level of significance and no mitigation is required.

5.1.6.4 Significance after Mitigation

a. MHPA

At the program-level, implementation of the CPU policies, compliance with established development standards and other applicable regulations as well as the MSCP Subarea Plan's Land Use Adjacency Guidelines, MSCP Management Policies and Directives, and Area Specific Management Directives would serve to reduce impacts to below a level of significance.

Boundary Adjustments

Impacts to the MHPA Preserve would be addressed through the MHPA boundary line equivalency analysis and would be less than significant.

MHPA Land Use Adjacency Guidelines

At the program-level, implementation of the Mitigation Framework measure LU-2 would serve to reduce potential impacts due to future development adjacent to MHPA to below a level of significance,

b. MSCP Specific Management Directives for Otay Mesa

Impacts would be below a level of significance.

5.2 Visual Effects and Neighborhood Character

5.2.1 Existing Conditions

5.2.1.1 Existing Visual Landscape

a. Landform

The existing landform of the CPU area is characterized by a large mesa surrounded by canyon systems on the north, south, and west (see Figure 2-4). These canyon systems comprise a unique landform feature of the CPU area. Included within the canyon systems are steep hillsides (slopes in excess of 25 percent gradient, as defined in the Hillside Guidelines of the Environmentally Sensitive Lands Regulations of the Land Development Code), and wide, deep gullies containing sensitive habitats. A total of 19 percent of the CPU area, or 1,730 acres, contains steep hillsides in excess of 25 percent. Portions of these canyon systems are preserved as natural open space as part of the City's MHPA, as defined by the City of San Diego MSCP Subarea Plan.

While most of the large, flat mesa is fallow agricultural land or developed as residential, commercial, and industrial uses, portions of the mesa also support unique mima mound topography and associated vernal pool habitat. The San Diego National Wildlife Refuge Vernal Pool Units occur immediately north of Otay Mesa Road near the intersection of Ocean View Hills Parkway and contains this type of topographic feature.

To the north, outside of the CPU area, lies the natural landform of the Otay River Valley, and 3 miles to the east are the prominent San Ysidro Mountains.

b. Scenic Resources

In accordance with the State Scenic Highway Program, the General Plan classifies scenic highways and routes throughout the City. No roadways within the CPU area have been designated as scenic in the General Plan or adopted community plan. The nearest designated or eligible scenic roadway to the CPU area is I-5, approximately one-quarter mile to the southwest. Interstate 5, south of Coronado Avenue and I-805, is shown as being eligible for state scenic highway designation in the General Plan. Also outside the CPU area, SR-125 is designated as a scenic highway for 2 miles between SR-94 and I-8; however, this segment is quite a distance north of the CPU area. Neither the I-5 nor SR-125 scenic highway segment has views of the CPU area. No other scenic resources or scenic vistas have been designated in the CPU area by either the General Plan or adopted community plan.

c. Public Views

Public views are views from public resources such as public open space, public parks and schools, municipal buildings, and public roadways. Significant public viewing resources are typically identified and designated as scenic resources or scenic viewpoints in the applicable community plan. As described above, the adopted community plan does not designate any scenic view corridors, vistas, or other scenic resources within the CPU area.

Public views from outside the CPU area looking into the CPU area are limited due to visual barriers. Views into the CPU area from the OVRP are limited due to intervening topography and elevation differences. Between berms and vegetation, motorists on I-805 have intermittent views of the western edge of the CPU area. The western edge of the CPU area is predominantly developed with large retaining walls, multi-story residential structures, and large commercial developments. SR-125 motorists have views of the eastern portion of the CPU area, with views transitioning between open space to industrial developments, including large warehousing and truck storage facilities. Based on distance and atmospheric conditions (haze), views of the CPU area from the San Ysidro Mountains, three miles to the east are typically not visible, or if visible, are not prominent because of decreased scale and contrast.

Existing gateways to the community include SR-905 and Palm Avenue/Ocean View Hills from the west, Heritage Road and SR-125 from the north, Otay Mesa Road from the east, and the Otay Mesa POE from the south. These gateways provide the initial views of the CPU area. Only the Otay Mesa POE and Ocean View Hills gateways include community identification elements. The Otay Mesa POE includes cultural art work and the Ocean View Hills gateway provides community monument signage. Once within the CPU area, public views points include public roadways, designated open space areas, and other public use areas (primarily schools and parks).

Refer to Section 5.12, Transportation/Circulation (specifically, Section 5.12.1.2a) for a list of the key roadways within the CPU area, including roads that provide access to and from the community, roads within residential areas, and roads within industrial areas. The residential roads primarily have views of commercial, single- and multi-family neighborhoods, parks, and canyons. The residential and commercial developments are relatively recent and include neutral-colored stucco structures (i.e., tan, brown), one to two stories tall with heavy landscaping, and terracotta-tiled roofs. The industrial roadways generally have views of large warehouses and vehicle storage facilities, former dry-farming fields, and flat non-native grassland open spaces. The structures in the industrial area are generally large, boxy, single-story, neutral-colored buildings surrounded by parking lots and minimal landscaping. The vehicle storage sites are typically enclosed by a slatted or fabric-covered chain-link fence so the interiors are not visible from the roadways.

Both San Ysidro High School and Ocean View Hills Elementary School are located adjacent to Otay Mesa Road/SR-905 at the west end of the CPU area, west of Ocean View Hills Parkway and Caliente Avenue. Both schools are located near the leading edge of the mesa adjacent to the Moody Canyon system. Current views from the school sites consist of the lower natural open space canyons to the west and the developed mesa top to the north and east.

Several neighborhood parks exist within areas planned for residential development. The views from these parks primarily consist of adjacent residences, roadways, and Dennery Canyon. The open space areas within the CPU area contain trails along mesas and canyons. Some of these trails were created from Border Patrol vehicles and activities. While these trails are located within designated open space, the trails are not all within public land and none of them are formally designated trails. The informal web of trails does not follow an organized path, and therefore, the trails cannot be described individually. The trails are concentrated in Spring, Moody, and Dennery canyons. Due to the topography, the views from trails within the canyons are mostly limited to the canyons themselves. Structures are visible from canyon trails where development abuts canyons. The trails along the flat mesas have views of the mesas until interrupted by structures or an increase in topography.

d. Community Character

Generally, the character of the southwestern one-third of the CPU area reflects undeveloped non-native or native grasslands and densely vegetated canyons, which transition to industrial, commercial, and residential development on the mesa. The flat mesa area of undeveloped lands is designated for various land uses under the adopted community plan. These undeveloped areas occur between the open space canyons of the southwestern area. The existing land use designation would allow for residential development similar to the established northwestern neighborhoods. To illustrate the existing visual character of the CPU area, a series of photographs are included as figures and described below. The locations of these photographs, as depicted in Figure 5.2-1, provide a visual inventory of the community's visual characteristics as seen from public viewing areas.

The northwest portion of the CPU area is characterized by residential subdivisions (including schools and parks) that consider the natural topography of the adjacent canyons and mesa tops. This area of the CPU is also characterized by successful vernal pool habitat restoration areas and open space canyon system, which connects to the Otay Valley Regional Park. Commercial uses for the CPU area are located within the western border at Palm Avenue adjacent to I-805. These recently constructed developments reflect siting and landscaping requirements. As shown in Figure 5.2-2, the residences are a maximum of three stories in height and are neutral-colored stucco structures with tiled roofs. The commercial area matches the residential color scheme

and architectural details, but includes large big-box retail structures and smaller restaurant and service-related structures in a sizable parking lot.

The CPU areas to the south of the western residential neighborhoods and along the northern CPU perimeter are characterized by undeveloped mesas and canyons (Figure 5.2-3). The flat mesas primarily contain grasslands while the canyons' steep slopes are covered with scrub vegetation. The open space area is also characterized by its extensive informal dirt trail network. Successful vernal pool restoration areas can be found in this portion of the CPU on land owned by the San Ysidro School District.

Except for some scattered rural residences and agricultural uses (greenhouses and fields), the eastern two-thirds of the CPU area is characterized by flat land occupied by Brown Field Airport, and industrial and commercial developments interspersed with vacant land. The majority of the undeveloped land has been previously graded and is currently vegetated with non-native grasslands.

Most of the industrial development is single-story warehousing, automobile recycling, and truck storage yards. The industrial warehouses are typically large monolithic structures surrounded by parking lots and manicured landscaping (Figure 5.2-4, Photograph 5). Truck storage facilities and the automobile salvage yards are cluttered and disorganized, though the public views of the storage areas are screened by slatted chain link fences and perimeter landscaping (Figure 5.2-4, Photograph 6). The commercial office and retail uses low-rise fueling stations and associated convenience stores and quick-dining establishments (Figure 5.2-5, Photograph 7). Commercial office character is generally illustrated by a two-story tan stucco office building with mirrored windows (Figure 5.2-5, Photograph 8). The overall character of the eastern portion of the CPU area is varied considering the contrasting features of the vacant grasslands, large boxy warehouses, field crops, formal office building, and cluttered vehicle storage yards.

The two major freeways that cross through the CPU area are SR-905 and SR-125. Views from the SR-905/SR-125 intersection consist primarily of roadside grass and scrub (Figure 5.2-6, Photograph 9). Views from the intersection of SR-905 and La Media Road show freeway use (Figure 5.2-6, Photograph 10).

Brown Field Airport, a major component of the CPU area, is not readily visible due to the flatness of the topography in the surrounding area. The airport includes large concrete runways but the airport towers are the most prominent visual feature of the airport because of their height (Figure 5.2-7, Photograph 11). The airport also includes large white or tan airplane hangars and airplanes.

Heavy trucks contribute to the character of the CPU area (Figure 5.2-7, Photograph 12). Numerous large trucks cross the border and travel to various truck storage and warehousing destinations throughout the CPU area before circling back to the POE or travel west along SR-905 to areas outside Otay Mesa.

Image source: Copyright 2010 Microsoft, All Rights Reserved (flown May 2010)

M:\JOBS2\3957-1\common_gis\2012\fig5.2-1.mxd 7/22/2013 ccn

0 Feet 2,500

Otay Mesa Community Plan Boundary
Not A Part

Photo Locations

FIGURE 5.2-1

Photo Location Map

THIS PAGE IS INTENTIONALLY BLANK.

PHOTOGRAPH 1: On Ocean View Hills Parkway Looking Northeast

PHOTOGRAPH 2: On Spinnaker Point Terrace Looking West

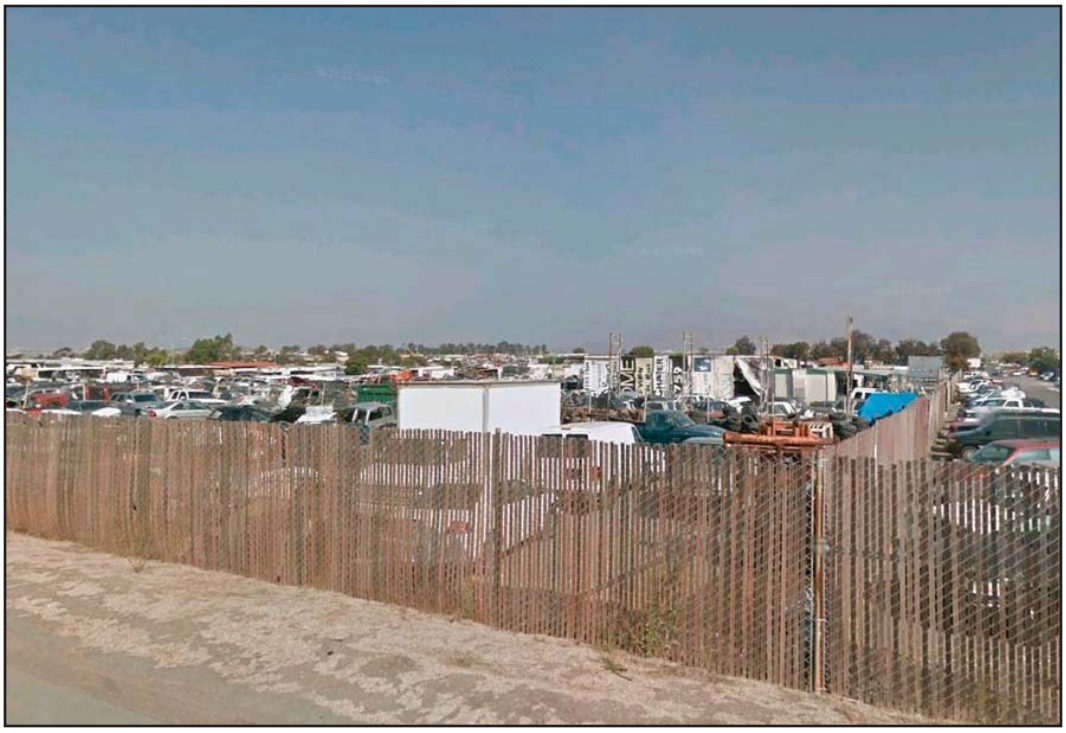
FIGURE 5.2-2
Residential Areas

PHOTOGRAPH 3: At Southern Terminus of Caliente Avenue Looking South

PHOTOGRAPH 4: At Southern Terminus of Heritage Road Looking South

FIGURE 5.2-3
Undeveloped Mesas and Canyons

PHOTOGRAPH 5: On Siempre Viva Road Looking North



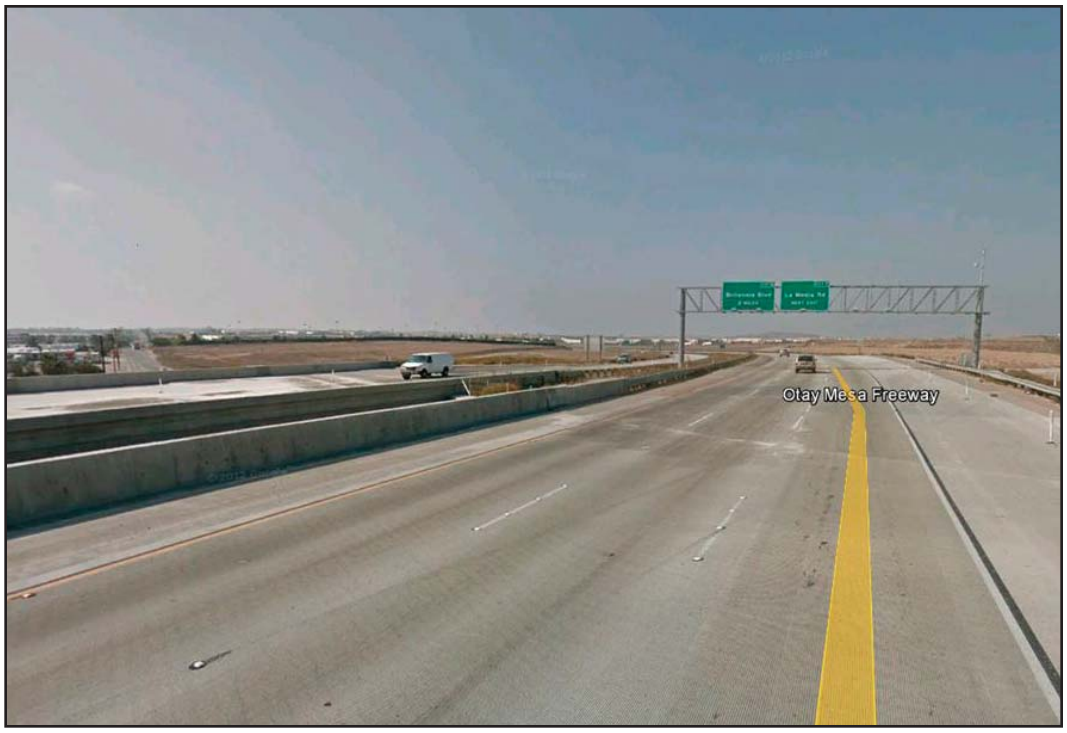
PHOTOGRAPH 6: Datsun Street at Innovative Drive Looking East

FIGURE 5.2-4
Industrial Uses

PHOTOGRAPH 7: On Otay Mesa Road Near Cactus Road Looking South

PHOTOGRAPH 8: Corporate Center Drive Looking Northwest

FIGURE 5.2-5
Commercial Uses



PHOTOGRAPH 9: On SR-905 at Airway Road Overpass Looking North

PHOTOGRAPH 10: On SR-125 East of Aviator Road Looking South

FIGURE 5.2-6
Freeways

PHOTOGRAPH 11: At Otay Mesa Road and Britannia Boulevard Looking North

PHOTOGRAPH 12: On Drucker Lane Looking North

FIGURE 5.2-7
Brown Field Airport and Heavy Trucks

5.2.1.2 Relevant Plans and Policies

Several local plans and ordinances provide pertinent visual quality and neighborhood character guidelines for development in the CPU area. These include the City's General Plan, the Land Development Code, specifically the steep hillside guidelines of the ESL.

a. San Diego General Plan

The Urban Design Element of the General Plan provides guidance for the development of village environments including high-quality public spaces, civic architecture, and the enhancement of visual quality. The Urban Design Element includes goals and policies specific to mixed-use villages and commercial areas that emphasize the integration of compatible land uses, the creation of transit-focused, walkable village centers, the provision of high-quality public spaces and civic architecture, and the enhancement of the visual quality of office and industrial development. The Urban Design Element also contains special design guidelines for development adjacent to natural landforms and open space. Relevant policies are included in Table 5.2-1.

TABLE 5.2-1
URBAN DESIGN ELEMENT POLICIES RELATED TO VISUAL QUALITY

Policy	Description
UD-A.3.	Design development adjacent to natural features in a sensitive manner to highlight and complement the natural environment in areas designated for development. a. Integrate development on hillside parcels with the natural environment to preserve and enhance views, and protect areas of unique topography. b. Minimize grading to maintain the natural topography, while contouring any landform alterations to blend into the natural terrain. c. Utilize variable lot sizes, clustered housing, stepped-back facades, split-level units or other alternatives to slab foundations to minimize the amount of grading. d. Consider terraced homes, stepped down with the slope for better integration with the topography to minimize grading in sensitive slope areas. e. Utilize a clustered development pattern, single-story structures or single-story roof elements, or roofs sloped toward the open space system or natural features, to ensure that the visibility of new developments from natural features and open space areas are minimized. f. Provide increased setbacks from canyon rims or open space areas to ensure that the visibility of new development is minimized. g. Screen development adjacent to natural features as appropriate so that development does not appear visually intrusive, or interfere with the experience within the open space system. The provision of enhanced landscaping adjacent to natural features could be used to soften the appearance of or buffer development from the natural features. h. Use building and landscape materials that blend with and do not create visual or other conflicts with the natural environment in instances where new buildings abut natural areas. This guideline must be balanced with a need to clear natural vegetation for fire protection to ensure public safety in some areas.

TABLE 5.2-1
URBAN DESIGN ELEMENT POLICIES RELATED TO VISUAL QUALITY
(continued)

Policy	Description
UD-A.3. (cont.)	i. Ensure that the visibility of new development from natural features and open space areas is minimized to preserve the landforms and ridgelines that provide a natural backdrop to the open space systems. For example, development should not be visible from canyon trails at the point the trail is located nearest to proposed development. Lines-of-sight from trails or the open space system could be used to determine compliance with this policy. j. Design and site buildings to permit visual and physical access to the natural features from the public right-of-way. k. Protect views from public roadways and parklands to natural canyons, resource areas, and scenic vistas. l. Provide public pedestrian, bicycle, and equestrian access paths to scenic view points, parklands, and where consistent with resource protection, in natural resource open space areas. m. Provide special consideration to the sensitive environmental design of roadways that traverse natural open space systems to ensure an integrated aesthetic design that respects open space resources.
UD-A.5.	Design buildings that contribute to a positive neighborhood character and relate to neighborhood and community context. a. Relate architecture to San Diego's unique climate and topography. b. Encourage designs that are sensitive to the scale, form, rhythm, proportions, and materials in proximity to commercial areas and residential neighborhoods that have a well-established, distinctive character. c. Provide architectural features that establish and define a building's appeal and enhance the neighborhood character. d. Provide architectural interest to discourage the appearance of blank walls for development. This would include not only building walls, but fencing bordering the pedestrian network, where some form of architectural variation should be provided to e. Add interest to the streetscape and enhance the pedestrian experience. For example, walls could protrude, recess, or change in color, height or texture to provide visual interest. f. Design rear elevations of buildings to be as well-detailed and visually interesting as the front elevation, if they will be visible from a public right-of-way or accessible public place or street. g. Design roofs to be visually appealing when visible from public vantage points and public rights-of-way.
UD-A.6.	Create street frontages with architectural and landscape interest to provide visual appeal to the streetscape and enhance the pedestrian experience.
UD-A.12.	Reduce the amount and visual impact of surface parking lots (see also Mobility Element, Section G).
UD-A.14.	Design project signage to effectively utilize sign area and complement the character of the structure and setting.

b. Land Development Code

The City's LDC contains numerous provisions to guide the design of development throughout the City. Through zoning and development standards, such as specified

maximum building heights, maximum lot coverage and floor area ratios, and front, rear, and side yard setbacks, the LDC provides restrictions on land development and design.

c. ESL Regulations and Steep Hillside Guidelines

The LDC also contains development restrictions and guidelines to protect and enhance environmentally sensitive lands. The steep hillsides of the CPU area are subject to the provisions of the ESL Regulations and steep hillside guidelines of the LDC (Section 143.0101). Steep hillsides are defined as those with gradients equal to or in excess of 25 percent and are at least 50 feet deep. Steep hillside grading encroachment allowances and design requirements are described further in Section 5.1 of this PEIR.

5.2.2 Significance Determination Thresholds

Based on the City's CEQA Significance Thresholds, impacts related to visual quality would be significant if the CPU would:

1. Result in blocking of public views from designated open space areas, roads, or parks or to significant visual landmarks or scenic vistas (Pacific Ocean, downtown skyline, mountains, canyon, waterways);

2. Result in a severe contrast with the surrounding neighborhood character;

3. Result in a significant alteration of the natural landform; or

4. Result in the creation of a negative visual appearance.

5.2.3 Issue 1: Public Views

Would the CPU affect the visual quality of the area, particularly with respect to views from public viewing areas, vistas, or open spaces?

5.2.3.1 Impacts

a. Undesignated Public Views

No scenic roadways, scenic vistas, or scenic viewing areas are identified within the CPU area, in the General Plan or the adopted Otay Mesa Community Plan. A brief analysis of public viewing areas that exist but are not designated as such is provided below.

As discussed under the existing conditions, public views of the CPU area from outside the community are limited due to visual barriers. Existing informal gateways to the community that provide initial views include SR-905 and Palm Avenue/Ocean View Hills from the west, Heritage Road and SR-125 from the north, Otay Mesa Road from the

east, and the Otay Mesa POE from the south. Implementation of the CPU would provide more formalized gateway locations and associated design guidelines. This formalization would result in improved visual quality and a cohesive community character. However, this change would not have impacts related to view blockage (refer to "Proposed Gateway Views" below). Once within the CPU area, public view points include public roadways, designated open space areas, and other public use areas (primarily schools and parks). The following identifies potential areas of visual concern:

- Public roadways within the CPU area provide views of the community. The CPU would result in additional development along the following major roads: Dennery Road, Del Sol Boulevard, Airway Road, Siempre Viva Road, Beyer Boulevard, and SR-905. Many of the areas identified for future development are not located on existing roadways and are not prominently located within public views.

- Future development on Dennery Road would include residences to the north side of the road between Red Coral Way and Black Coral Way. This would block the existing views of the hillside to the north that contains residences and patches of native scrub habitat. This location is not visible from OVRP due to topographic change.

- Del Sol Boulevard is only partially constructed. The current east and west termini of this roadway overlook open space and graded lots. The CPU would retain the open space and would allow for development on graded pads. Views of the open space native canyons would be preserved.

- Airway Road and Siempre Viva Road currently have views of industrial and commercial developments, vacant parcels with non-native grassland, greenhouses, and native habitat. The CPU would allow for development of the vacant lots and greenhouses into industrial and commercial uses that may block views of adjacent developed lots. The native habitat area would be preserved as open space and the public view of this area would remain.

- The CPU would allow for residential, commercial, and industrial developments along the mesas adjacent to SR-905 and would require preservation of the canyon areas. Buildout of the CPU would cause view blockages of the mesas between Ocean View Hills Parkway and Corporate Center Drive and view blockage of vacant and developed lots would occur in the industrial area.

- Both San Ysidro High School and Ocean View Hills Elementary School are located adjacent to Otay Mesa Road/SR-905 at the west end of the CPU area. The current view of Moody Canyon from Ocean View Hills would be preserved, as it would be designated open space under the CPU. However, the view from San Ysidro High School of the mesas to the south would be replaced with the Southwest Specific Plan area and views of Spring Canyon would be blocked.

- Several neighborhood parks exist within the Northwest District. The views from these parks primarily consist of adjacent residences, roadways, and Dennery Canyon. Dennery Canyon is a visual resource. The CPU would preserve Dennery Canyon and no view blockage of the canyon would occur from the parks.

- Informal trails that provide public views are located within the open space areas. As discussed under existing conditions, views from the canyon trails are limited to the canyons while mesa views exist until interrupted by structures or an increase in topography. The CPU would preserve a significant amount of the existing open space (see Figure 3-2) where these trails are located. Since the CPU would formally designate view corridors through open space and preserve the open space where most of these trails are located, minimal view blockage would occur.

In summary, visual resources in the CPU area include open mesas and canyons. While not designated as scenic roadways, vistas, or viewing areas, the majority of the existing views of canyons and mesas would be preserved under the CPU and impacts would therefore be less than significant.

b. Proposed Designated Public Views

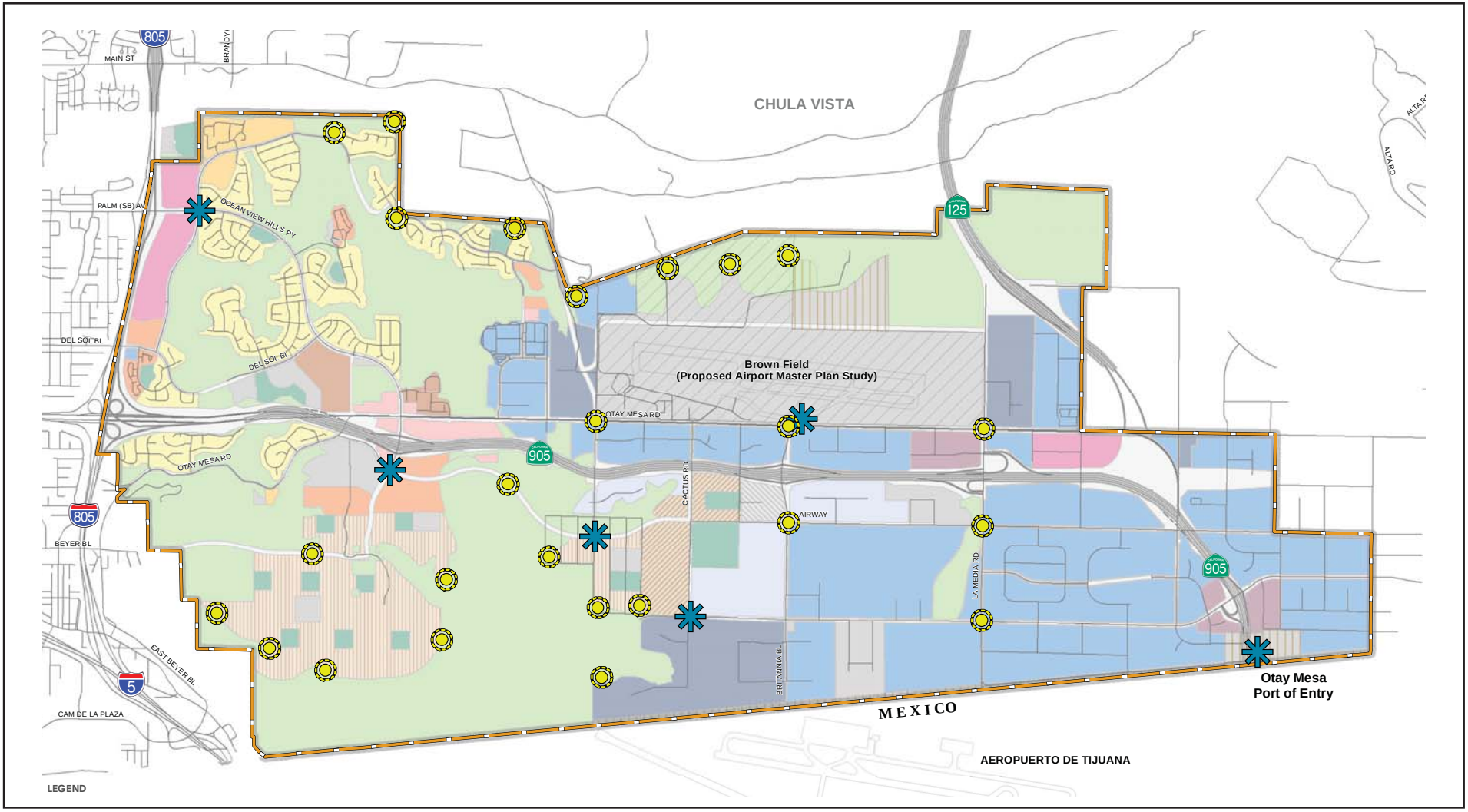
The CPU Urban Design Element designates 25 view corridors and ten gateways (Figure 5.2-8).

The CPU includes Policies 4.12-1 through 4.12-4 that pertain to the view corridors and gateways. Policy 4.12-1 would require the protection and enhancement of view corridors and integration of these corridors with parks, trail staging areas, and open space, where appropriate. The series of gateway policies (4.12-2 through 4.12-4) indicate gateways are to include public art and are required to match the district landscaping and street designs. These policies would provide implementation methods to ensure that the designated view corridors and gateways would be protected.

View Corridors

The view corridors would be grouped into four main categories: View Corridors of OVRP, View Corridors of Spring Canyon, View Corridor of Moody Canyon, and View Corridors through Industrial/Commercial Land. View Corridors of OVRP would be located along the northern portion of the CPU area on the edge of existing/planned development and the OVRP open space area. The OVRP encompasses the low-lying riparian valley along the Otay River and its tributary canyons, including a portion of Dennery Canyon within the CPU northwest area. The CPU would retain the open space designation over the OVRP and Dennery Canyon areas within its jurisdiction.

Map Source: City of San Diego



No Scale

AIR - HATCH
BUSINESS PARK
BUSINESS PARK - RESIDENTIAL
COMMUNITY COMMERCIAL - NO RESIDENTIAL
COMMUNITY VILLAGE
HEAVY COMMERCIAL
HEAVY INDUSTRIAL
INSTITUTIONAL
LIGHT INDUSTRIAL
LOW
LOW MEDIUM
MEDIUM
MEDIUM HIGH
NEIGHBORHOOD COMMERCIAL
NEIGHBORHOOD VILLAGE
OFFICE COMMERCIAL
OPEN SPACE
PARKS
REGIONAL COMMERCIAL - NO RESIDENTIAL
RIGHT-OF-WAY
SCIENTIFIC RESEARCH
SPECIAL AIRPORT POLICY AREA
SPECIAL AIRPORT STUDY AREA
TECHNOLOGY PARK
URBAN VILLAGE
VERY LOW
VISITOR COMMERCIAL

FIGURE 5.2-8

Proposed View Corridors and Gateways

M:\JOBS2\3957-1\env\graphics\fig5.2-8.ai 08/02/13

View Corridors of Spring Canyon are proposed along the edges of Southwest Specific Plan area, Old Otay Mesa Road, the Central Village, and the heavy industrial area adjacent to Spring Canyon. These overlook views of Spring Canyon include existing informal trails and roadways, mesas with non-native grasslands, and scrub canyons. The CPU would retain Spring Canyon as open space and include a trail system.

The View Corridor of Moody Canyon would be located along the future alignment for Beyer Boulevard. Moody Canyon includes flat non-native grasslands cut by scrub canyons and has an extensive existing informal trail network. The CPU would retain Moody Canyon as open space land.

View corridors through Industrial/Commercial Land are proposed at intersections along Otay Mesa Road, Airway Road, Britannia Boulevard, and La Media. The view corridors along these roadways would primarily include developed industrial land and undeveloped parcels with non-native grasslands. View corridors along La Media would also include native scrub habitat to the west. The CPU would allow for development of the parcels with non-native grasslands into industrial uses and potentially a school to the west of Britannia Boulevard. The native habitat to the west of La Media would be designated as open space.

Since the canyon view corridors look out over designated open space and MHPA areas, these areas would remain undeveloped and the view corridors would be preserved upon implementation of the CPU. The urban view corridors would also be maintained as they are located in City right-of-ways along roadways adjacent to areas designated for development.

Gateway Views

Pursuant to CPU Policy 4.11-4, gateways would be provided at the following locations:

- District gateways
- Ocean View Hills Parkway – I-805 freeway
- Ocean View Hills Parkway and Otay Mesa Road
- Caliente Avenue – SR-905 interchange
- Otay Mesa POE
- South Bay Express/SR-125 – Lonestar Road interchange
- Main entrance to Brown Field Airport
- Eastern and western Airway Road entrances
- Future core areas of Southwest and Central Villages
- Grand Park

Gateways are intended to provide a sense of place and would be demarcated with prominent public art or cultural amenities, signage, landscaping, and other streetscape elements. The Ocean View Hills neighborhood includes large monument signs on the southeast and northeast corners near the I- 805 gateway. Also, the Otay Mesa POE

currently contains cultural statues. The remaining proposed gateway areas do not currently contain community identification features, but the CPU implementation would allow for them to be designed and sited in these areas.

The CPU would allow for development and land use changes at several of the proposed community gateways. While this would result in some view blockage of the gateway areas, the visual importance of gateways would be tied to a localized area, not a long-range view. The gateways would be located along City roadways, and therefore, localized public views of these areas would be maintained with CPU implementation.

5.2.3.2 Significance of Impacts

Visual resources in the CPU area include open mesas and canyons. Existing public view points include roadways, schools, and parks. The majority of the existing public views of canyons and mesas would be preserved under the CPU. To prevent impacts to views of public resources, the CPU has been designed to include designated view corridors and gateways. Also, the CPU includes policies and project design features to implement the proposed view corridors and gateways. With the inclusion of these project design features, view blockage impacts would be less than significant.

5.2.3.3 Mitigation Framework

Impacts would be less than significant; no mitigation is required.

5.2.3.4 Significance After Mitigation

Impacts would be less than significant.

5.2.4 Issue 2: Compatibility

Would the CPU's land use changes be compatible with surrounding development in terms of bulk, scale, materials, or style? Would adverse aesthetic impacts result from the CPU?

5.2.4.1 Impacts

The CPU would allow for the development of two-thirds of the area and would require the preservation of the remaining area as open space. The allowed uses would include a mix of residential, public park, open space, institutional, commercial, and industrial land uses and roadways. The CPU area is visually separated into five distinct areas that correspond to the CPU districts; the northwest neighborhood, southwest neighborhood, the SR-905 corridor, Brown Field Airport area, and the South District (southeastern industrial area). The City's General Plan, LDC, and CPU Urban Design Element include

design guidelines that would guide the bulk, scale, materials and style of future development in the CPU area. Specifically, CPU Policies 4.3-3 through 4.3-7 pertain to general architecture and landscape. The CPU also includes individual guidance for the aesthetic development of each District. In addition, development in areas designated for commercial and industrial uses on properties that have been previously graded and developed with structures that conform to the Urban Design Element of the OMCP would be subject to review in accordance with CPIOZ Type A. Development proposals that do not comply with the CPIOZ Type A supplemental regulations would be subject to discretionary review in accordance with CPIOZ Type B. Both processes are further described in Section 3.0, Project Description.

a. Northwest District

The Northwest District would include regional commercial, single-, and multi-family residential uses, parks, and a school. This district is currently largely built out with these uses. Undeveloped areas are designated as low to medium density residences located to the north of Dennery Road; four parks scattered through the community; high density residences, community commercial and institutional uses to the south of Del Sol Boulevard; community commercial south of Otay Mesa Road adjacent to SR-905; and a low-medium density residential development to the south of Otay Mesa Road.

These areas proposed for development are already graded and the existing graded lots are not visually sensitive. Development of these graded areas would improve their visual compatibility with the surrounding areas. Therefore, implementation of the Northwest District plan would not result in visually incompatibility with the CPU area or have an adverse aesthetic impact to the community.

b. Southwest District

The current visual landscape of the southwest portion of the CPU area is characterized by undeveloped mesas with non-native grasslands, transected by the densely vegetated Spring and Moody canyons. The canyons of the southwest portion of the CPU area are located within designated MHPA land.

Compared to existing conditions, buildout of the Southwest District pursuant to the CPU would result in a substantial change from its current visual character. The change from undeveloped mesa and canyons to an urbanized, built environment on the mesa surrounded by natural open space would be a potentially significant impact. Goals, policies, and design guidelines contained in the General Plan and in the CPU would serve to avoid visual impacts of future CPU development in relation to surrounding natural open space. The Urban Design Element of the General Plan contains citywide policies which address development adjacent to natural features (Policies UD-A.2 and 3). The CPU includes Policy 7.1-7e suggesting the placement of parks between open space and development as a means to reduce visual inconsistency. Additionally, CPU

Policy 8.1-3 requires development to minimize grading and retain the natural topography. Future development's compliance with existing and proposed visual quality guidelines would ensure that natural open space areas adjacent to the CPU area would not be adversely affected.

SR-905 Corridor (Central District)

Along the SR-905 corridor south of Brown Field, lands are currently occupied by undeveloped, industrial, and commercial uses, with scattered rural residences (see Figure 5.1-1). The CPU would allow for the development of a mixed-use (residential/commercial) central village, park, school (Southwestern College), business park, and industrial uses within this district.

In terms of visual character, the existing undeveloped parcels and scattered industrial, commercial, and rural residences along the SR-905 corridor would transition over the next 30 years to a more urbanized, cohesive environment. The visual character of the district would transition from existing low-rise, single-use structures and blocks, to vertically and horizontally mixed-use structures and blocks. Under the CPU, the resulting building mass, scale, and heights would be those characteristic of medium-high density mixed-use, transit-focused development, with building heights ranging from three to four stories up to a maximum of six stories.

Various goals and policies of the General Plan and CPU would serve to avoid adverse aesthetic impacts. The General Plan Land Use, Urban Design, and Mobility Elements contain relevant citywide policies to address land use compatibility, including Policy UD-A.5. The LDC also includes specific guidelines pertaining to height, bulk, and scale. The CPU Urban Design Element includes development guidance pertaining to streetscape, building character, and design to avoid adverse visual impacts. Future development's projects compliance with visual quality guidelines would ensure that visual impacts of the CPU would not be incompatible with surrounding development.

Airport District

The CPU would continue industrial and commercial uses for the areas directly surrounding Brown Field, within the airport flight activity zone. While these uses would continue in the Airport District, the future visual quality of these areas would likely transition to a more organized and aesthetically pleasing visual appearance than currently exists. Automobile dismantling uses concentrated west of Brown Field, along Heritage Road, currently operate under CUPs. Upon their expiration, it is likely that these areas would eventually revert to permitted land uses and would comply with the General Plan, LDC, and CPU. Additional airport-related development would occur to the north of the airport and may include an aviation museum, general/corporate aviation and industrial park. With compliance to the design goals and policies of the General Plan and

CPU, as well as the MHPA Land Use Adjacency Guidelines, visual quality, and compatibility impacts would be less than significant in this district.

Southeastern Industrial Area (South District)

The southeastern area of the CPU located just north of Mexico is currently developed with industrial, agricultural, and commercial uses. Vacant lots with non-native grassland and open space areas with native and non-native habitats are scattered throughout the district. Implementation of the CPU would result in the development of vacant parcels into industrial uses and the conversion of agricultural uses to industrial uses. Industrial uses are anticipated to be large warehouse-type structures and automotive lots similar to those existing in the area. The western portion of this district within Spring Canyon and a corridor along La Media would be preserved as open space. Implementation of the CPU would result in the continuation of the industrial character of the area, albeit further intensified. The CPU would not result in significant visual impacts or incompatibilities, given adherence of future development to relevant citywide policies and CPU policies.

5.2.4.2 Significance of Impacts

Through implementation of the CPU, the visual character of the CPU area would become more urbanized. Being largely built out, the Northwest District would continue to be a predominantly residential area with buildings ranging from one to three stories. Contrastingly, the Southwest District is mostly undeveloped mesas with non-native grasslands that would be converted to urban uses. This would represent a change in character. The Central District is already developed with industrial and agricultural uses. Both the Airport District and the South District are also already developed with industrial uses and the CPU would allow for further intensification of these uses. Therefore, the proposed intensification of uses is not considered a significant change to the visual character in these areas.

The land use and development design guidelines and policies in the CPU are intended to ensure that development within the CPU area would not result in architecture, urban design, landscaping, or landforms that would negatively affect the visual quality of the area, or strongly contrast with the surrounding development or natural topography through excessive bulk, signage, or architectural projection. Future development would be required to comply with the relevant land use and development design guidelines and policies of the General Plan and CPU. In addition, development in areas designated for commercial and industrial uses on properties that have been previously graded and developed with structures that conform to the Urban Design Element of the OMCP would be subject to review in accordance with CPIOZ Type A. Development proposals that do not comply with the CPIOZ Type A supplemental regulations would be subject to discretionary review in accordance with CPIOZ Type B. Therefore, impacts would be less than significant.

5.2.4.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

5.2.4.4 Significance After Mitigation

Impacts would be less than significant.

5.2.5 Issue 3: Landform Alteration

Would the CPU result in a substantial change to natural topography or other ground surface relief feature?

5.2.5.1 Impacts

Specific grading quantities associated with future development in accordance with the CPU land uses are presently unknown. It can be generally concluded, however, that future development would entail grading in quantities that would exceed the City's threshold of 2,000 cubic yards per graded acre. In order to determine whether these grading quantities would result in a significant impact to landform, one of four conditions must be met. The first condition is that project grading must disturb steep hillsides in excess of the encroachment allowances of the ESL Regulations and Steep Hillside Guidelines. ESL compliance is discussed further in Section 5.1.3.3. Steep hillside encroachments may occur at locations where future development adjoins the Spring, Moody, and Dennery Canyon systems. In addition to steep hillside encroachments, it is also possible that future development in accordance with the CPU would create manufactured slopes higher than 10 feet, and/or fill slopes that exceed 5 feet in height, thus exceeding the second and third grading significance thresholds as well.

According to Section 143.0142 of the ESL, Steep Hillside Guidelines, development is only permitted in hillsides when necessary to achieve a maximum development area of 25 percent. In addition, the City's Significance Determination Thresholds state that grading would not be considered significant if one or more of the following conditions apply:

- The proposed grading plans clearly demonstrate, with both spot elevations and contours, that the proposed landforms would very closely imitate the existing on-site landform and/or the undisturbed, pre-existing surrounding neighborhood landforms. This may be achieved through naturalized, variable slopes.
- The proposed grading plans clearly demonstrate, with both spot elevations and contours, that the proposed slopes follow the natural existing landform and at no point vary substantially from the natural landform elevations.

- The proposed excavation of fill is necessary to permit installation of alternative design features such as step-down or detached buildings, non-typical roadway or parking lot designs, and alternative retaining wall designs which reduce the project's overall grading requirements.

As future development proposals come forward pursuant to the CPU, they would be reviewed to determine whether the grading plans demonstrate compliance with the above criteria or if alternative design features are required. Future projects would be required to demonstrate compliance with landform grading guidelines contained in the City Grading Regulation, ESL Regulations, and Steep Hillside Guidelines of the LDC. Additionally, CPU Policy 8.1-3 encourages development to minimize grading and relate to the topography and natural features of the CPU area. Application of these regulatory and guidance documents would ensure that impacts associated with changes to natural topography of the CPU area would be less than significant at the program-level.

5.2.5.2 Significance of Impacts

Future development would be required to comply with the relevant land use and development design guidelines and policies of the General Plan and CPU. Therefore, impacts would be less than significant.

5.2.5.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

5.2.5.4 Significance After Mitigation

Impacts would be less than significant.

5.2.6 Issue 4: Unique Physical Features

Would the CPU result in a negative visual appearance due to the loss, covering, or modification of any unique physical features such as a natural canyon or hillside slope in excess of 25 percent gradient?

5.2.6.1 Impacts

As discussed above in the Issue 3 analysis, future grading associated with implementation of the CPU and infrastructure improvements would involve grading and modification of steep hillsides (slopes with gradients in excess of 25 percent) contained within the natural canyon areas. As described further in Section 5.1.5 of this PEIR, future projects implemented in accordance with the CPU would be required to comply with the goals and policies of the General Plan pertaining to the preservation and

enhancement of natural landforms, including canyons and steep hillsides. The General Plan Conservation Element indicates that ESL regulations shall be enforced to limit grading and alteration of steep hillsides to prevent landform impacts and preserve the City's form. The CPU includes Conservation Element Policies 8.1-1 through 8.1-3 related to landform alteration. These policies require the implementation of the ESL regulations related to biological resources and steep hillsides for all new development. Additionally, future projects implemented in accordance with the CPU would be required to preserve a network of open and relatively undisturbed canyons and relate to the topography and natural features of the CPU area.

The ESL regulation prohibits development that encroaches into steep hillsides within the MHPA. For areas outside of the MHPA, the ESL allows development of steep hillsides only when necessary to achieve a maximum development area of 25 percent of the premises. Development consistent with the CPU has the potential to encroach into ESL steep hillsides and exceed ESL encroachment allowances resulting in modification of unique physical features within the CPU area. However, future projects' compliance with the City's Grading Regulations, General Plan, and CPU policies would ensure that impacts associated with the modification of unique physical features would be less than significant.

5.2.6.2 Significance of Impacts

Future development would be required to comply with the City's relevant land use and development regulations, ESL regulations, and policies of the General Plan and proposed CPU. Therefore, impacts would be less than significant.

5.2.6.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

5.2.6.4 Significance After Mitigation

Impacts would be less than significant.

5.3 Air Quality/Odor

This analysis is based on the air quality report prepared by RECON to analyze the air quality emissions that potentially could result from implementation of the CPU (RECON, February 2013). The report also addresses air quality impacts resulting from vehicle exhaust on newly proposed residential development in the CPU. This report is included as Appendix C of this PEIR.

5.3.1 Existing Conditions

5.3.1.1 Climate

The CPU area is located in the SDAB about 6 miles east of the Pacific Ocean. The City of San Diego covers approximately 330 square miles of the 4,260-square-mile basin. The eastern portion of the SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow, prohibiting dispersal of pollutants and helping to trap and concentrate pollutants in the valleys and low-lying areas below in inversion layers.

The CPU area, like the rest of San Diego County's coastal areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the project area is 62 degrees Fahrenheit (°F). The average annual precipitation is 12 inches, falling primarily from November to April. Winter low temperatures in the project area average about 41°F, and summer high temperatures average about 78°F. The average relative humidity is 69 percent and is based on the yearly average humidity at Lindbergh Field (Western Regional Climate Center [WRCC 2012]).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become "trapped" as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

Throughout the year, the height of the temperature inversion in the afternoon varies between approximately 1,500 and 2,500 feet AMSL. In winter, the morning inversion layer is about

800 feet AMSL. In summer, the morning inversion layer is about 1,100 feet AMSL. Therefore, air quality generally tends to be better in the winter than in the summer.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure system develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds from the east over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin (including Los Angeles) to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported contaminants from Los Angeles and Mexico, in addition to locally produced contaminants, produces the worst air quality measurements recorded in the basin.

5.3.1.2 Regulatory Plans and Policies

a. Federal Regulations

Ambient Air Quality Standards (AAQS) represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation’s air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS). The NAAQS require that certain pollutants should not exceed specified levels. Areas that exceed the standard for specified pollutants are designated “non-attainment areas”.

Six pollutants of primary concern were designated: ozone (O_3), carbon monoxide (CO), sulfur dioxide, nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (PM_{10} and $PM_{2.5}$). The primary NAAQS “. . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . .” and the secondary standards “. . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air” (42 USC 7409(b)(2)). The primary standards were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties).

The current federal AAQS are presented in Table 5.3-1. The SDAB is a non-attainment area for the federal 8-hour ozone standard. The SDAB has recently attained the 1997 ozone standard and California Air Resources Board (CARB) is now in the process of filing a petition to the U.S. EPA to redesignate the region.

b. State Regulations

The U.S. EPA allows states the option to develop different (stricter) standards. The State of California generally has set more stringent limits on the criteria pollutants (see Table 5.3-1), and both federal and state standards must be met in California. The California Clean Air Act (CCAA), also known as the Sher Bill, or Assembly Bill 2595 (AB 2595), became effective on January 1, 1989. The CCAA requires that districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures. The California CAA requires that a district must (South Coast Air Quality Management District [SCAQMD] 2007):

- Demonstrate the overall effectiveness of the air quality program;
- Reduce non-attainment pollutants at a rate of five percent per year, or include all feasible measures and expeditious adoption schedule;
- Ensure no net increase in emissions from new or modified stationary sources;
- Reduce population exposure to severe non-attainment pollutants according to a prescribed schedule;
- Include any other feasible controls that can be implemented, or for which implementation can begin, within 10 years of adoption of the most recent air quality plan; and
- Rank control measures by cost-effectiveness.

The SDAB is a non-attainment area for the state ozone standards, the state PM_{10} standard, and the state $PM_{2.5}$ standard.

c. Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

TABLE 5.3-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[8]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		53 ppb (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[9]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[9]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[9]	–	
Lead[10,11]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[11]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[12]	8 Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

See footnotes on next page.

TABLE 5.3-1
AMBIENT AIR QUALITY STANDARDS
(continued)

SOURCE: State of California 2012a.

ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter; – = not applicable.

[1]California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2]National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3]Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4]Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

[5]National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6]National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7]Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

[8]To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

[9]On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99^{th} percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[10]The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[11]The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[12]In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

Of particular concern statewide are diesel-exhaust particulate matter (DPM) emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program. Diesel emissions generated within the CPU area and the surrounding areas pose a potential hazard to residents and visitors.

Following the identification of diesel particulate matter as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to diesel particulate matter 85 percent by 2020.

A number of programs and strategies to reduce diesel particulate matter that have been implemented or are in the process of being developed include (CARB 2010a):

- **The Carl Moyer Memorial Air Quality Standards Attainment Program:** This program, administered by CARB, was initially approved in February 1999 and provides incentive grants to cover an incremental portion of the cost of upgrading to cleaner-than-required engines, equipment, and other sources of pollution providing early or extra emission reductions. Eligible projects include cleaner on-road, off-road, marine, locomotive, and agricultural sources. The program guidelines are revised regularly (most recently in April 2011).

- **On-road Heavy-duty Diesel Engine Reduced Emission Standards**: This rule reduces emission standards for 2007 and subsequent model year heavy-duty diesel engines (66 Federal Register [FR] 5002, January 18, 2001).

- **On-road Heavy-duty Diesel Engine In-use Compliance Program**: This program requires in-use compliance testing to ensure that existing vehicles/engines meet applicable emission standards throughout their useful life.

In April 2005, CARB published *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of

pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public exposure to diesel particulate matter will continue to decline.

d. State Implementation Plan (SIP)

A State Implementation Plan (SIP) is a plan for each state which identifies how that state will attain and/or maintain the primary and secondary NAAQS as identified in section 109 of the CAA and 40 Code of Federal Regulations (CFR) 50.4 through 50.12, which includes federally enforceable requirements. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all matters related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the CFR at 40 CFR 52.220.

The San Diego Air Pollution Control District (SDAPCD) is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these objectives.

e. Regional Air Quality Strategy (RAQS)

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the 1991/1992 Regional Air Quality Strategy (RAQS) in response to the requirements set forth in AB 2595. The draft was adopted, with amendments, on June 30, 1992 (County of San Diego 1992). Attached, as part of the RAQS, are the Transportation Control Measures (TCMs) for the air quality plan prepared by SANDAG in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The required triennial updates of the RAQS and corresponding TCMs were adopted in 1995, 1998, 2001, 2004, and 2009. The RAQS and TCMs set forth the steps needed to accomplish attainment of the CAAQS.

5.3.1.3 Existing Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors

affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The SDAPCD maintains 11 air quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these 11 stations. Measurements are then used by scientists to help forecast daily air pollution levels. Table 5.3-2 summarizes the number of days per year during which state and federal standards were exceeded in the SDAB overall during the years 2007 to 2011. The Otay Mesa—Paseo International monitoring station, located in the southeastern portion of the CPU area, and the Otay Mesa—Richard J. Donovan Correctional Facility monitoring station, located east of the CPU area, are the nearest stations. Figure 5.3-1 shows the locations of these monitoring stations. As shown, the Otay Mesa monitoring station is located at the U.S.–Mexico border. Air pollutant measurements taken at the Otay Mesa monitoring station include the air pollutants originating in Tijuana.

Table 5.3-3 provides a summary of measurements of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM_{10} collected at the Otay Mesa monitoring stations for the years 2007 through 2011.

a. Ozone

Nitrogen oxides and hydrocarbons (reactive organic gases [ROGs]) are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. Ozone is the primary air pollution problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution, or smog, is mainly a concern during the daytime in summer months. The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 20 years, San Diego has experienced a decline in the number of days with unhealthy levels of ozone despite the region's growth in population and vehicle miles traveled (County of San Diego 2010). As noted in Section 5.3.1.2, the SDAB has recently attained the 1997 ozone standard and CARB is now in the process of filing a petition to the U.S. EPA to redesignate the region.

Locally, about three-quarters of smog-forming emissions come from motor vehicles and mobile equipment powered by internal combustion engines (County of San Diego 2009a). Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants while operating on area roadways. In addition, the occasional transport of smog-filled air from the SCAB only adds to the SDAB's

Image source: Copyright 2010 Microsoft, All Rights Reserved (flown May 2010)

M:\JOBS2\3957-1\common_gis\2012\fig5.3-1.mxd 7/22/2013 ccn

0 Feet 3,000

Otay Mesa Community Plan Boundary
Not A Part

Air Quality Monitoring Station

Donovan
Otay Mesa-Paseo International

FIGURE 5.3-1

Air Quality Monitoring Stations

THIS PAGE IS INTENTIONALLY BLANK.

TABLE 5.3-2
AMBIENT AIR QUALITY SUMMARY – SAN DIEGO AIR BASIN

Pollutant	Average Time	California Ambient Air Quality Standards[a]	Attainment Status	National Ambient Air Quality Standards[b]	Attainment Status[c]	Maximum Concentration					Number of Days Exceeding State Standard					Number of Days Exceeding National Standard				
						2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
O_3	1 hour	0.09 ppm	N	N/A	N/A	0.134	0.139	0.119	0.107	0.114	21	18	8	7	5	1	2	0	0	0
O_3	8 hours	0.07ppm	N	0.08 ppm (1997)	N	0.092	0.110	0.098	0.088	0.093	50	69	47	21	33	7	11	4	1	3
O_3	8 hours	---	---	0.075 ppm (2008)	N	0.092	0.109	0.097	0.088	0.093	---	---	---	--	--	27	35	24	14	10
CO	1 hour	20 ppm	A	35 ppm	A	8.7	4.6	Na	Na	Na	0	0	Na	Na	Na	0	0	Na	Na	Na
CO	8 hours	9 ppm	A	9 ppm	A	5.18	3.51	3.54	2.46	2.44	0	0	0	0	0	0	0	0	0	0
NO_2	1 hour	0.18 ppm	A	N/A	N/A	0.101	0.123	0.091	0.091	0.1	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A
NO_2	Annual	0.030 ppm	N/A	0.053 ppm	A	0.015	0.015	0.016	0.013	0.013	N/A	N/A	N/A	N/A	N/A	NX	NX	NX	NX	NX
SO_2	1 hour	25 pphm	A	N/A	N/A	2.7	1.9	Na	Na	Na	0	0	Na	Na	Na	N/A	N/A	N/A	N/A	N/A
SO_2	3 hour	---	N/A	50 pphm[d]	A	1.7	1.4	Na	Na	Na	N/A	N/A	N/A	N/A	N/A	0	0	Na	Na	Na
SO_2	24 hours	4 pphm	A	14 pphm	A	0.9	0.7	Na	Na	Na	0	0	Na	Na	Na	0	0	Na	Na	Na
SO_2	Annual	N/A	N/A	3 pphm	A	0.3	0.2	Na	Na	Na	N/A	N/A	N/A	N/A	N/A	NX	NX	Na	Na	Na
PM_{10}	24 hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U	394	158	126	108	125	27/ 158.6*	30/ 163.4*	25/ 146.4*	22/ 136*	23/ 138.5*	1/6.1*	1/Na*	0/Na*	0/0*	0/0*
PM_{10}	Annual	20 $\mu g/m^3$	N	N/A	N/A	58.4	56.1	53.9	47	46.2	EX	EX	EX	EX	EX	N/A	N/A	N/A	N/A	N/A
$PM_{2.5}$	24 hours	N/A	N/A	35 $\mu g/m^3$	A	151	44	78.4	52.2	35.5	N/A	N/A	N/A	N/A	N/A	17/11.4	5/3.5	4/3.4	2/2	3/3
$PM_{2.5}$	Annual	12 $\mu g/m^3$	N	15 $\mu g/m^3$	A	13.3	14.9	12.2	10.8	10.9	EX	EX	EX	EX	EX	NX	NX	NX	NX	NX

SOURCE: State of California 2011a; U.S. EPA 2011a

*Measured Days/Calculated Days—Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. Particulate measurements are collected every six days. The number of days above the standard is not necessarily the number of violations of the standard for the year.

[a]California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM_{10} are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

[b]National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

[c]A = attainment; N = non-attainment; U = Unclassifiable

N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

ppm = parts per million, pphm = parts per hundred million, $\mu g/m^3$ = micrograms per cubic meter.

[d]Secondary Standard

TABLE 5.3-3
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED AT THE OTAY MESA MONITORING STATIONS

Pollutant/Standard	2007	2008	2009	2010	2011
OTAY MESA—PASEO INTERNATIONAL MONITORING STATION					
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	0	2	1	0	1
Days State 8-hour Standard Exceeded (0.07 ppm)	1	3	0	0	1
Days Federal 1-hour Standard Exceeded (0.12 ppm)	0	0	0	0	0
Days '97 Federal 8-hour Standard Exceeded (0.08 ppm)	0	1	0		
Days '08 Federal 8-hour Standard Exceeded (0.075 ppm)	0	2	0		
Max. 1-hr (ppm)	0.092	0.099	0.098	0.076	0.095
Max 8-hr (ppm)	0.072	0.089	0.068	0.068	0.076
Carbon Monoxide					
Days State 1-hour Standard Exceeded (20 ppm)	0	0	0		
Days State 8-hour Standard Exceeded (9 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (35 ppm)	0	0	0		
Days Federal 8-hour Standard Exceeded (9 ppm)	0	0	0	0	0
Max. 1-hr (ppm)	5.70	4.60	4.60		
Max. 8-hr (ppm)	3.39	3.51	3.06	2.21	Na
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.101	0.123	0.091	0.091	0.100
Annual Average (ppm)	0.022	0.024	0.021	0.021	0.020
Sulfur Dioxide					
Days State 24-hour Standard Exceeded (0.04 ppm)	0	0	0	0	0
Max. Daily (ppm)	0.009	0.006	0.007	0.008	0.007
Annual Average (ppm)	Na	Na	0.003	0.001	Na
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	27	30	25	22	23
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	158.6	163.4	146.4	136.0	138.5
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	1	1	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	6.1	6.1	0	0	0
Max. Daily ($\mu g/m^3$)	394.0	158.0	126.0	108.0	126.0
State Annual Average ($\mu g/m^3$)	58.4	56.1	53.9	47.0	46.2
Federal Annual Average ($\mu g/m^3$)	58.8	56.0	53.6	46.6	45.4
OTAY MESA—DONOVAN CORRECTIONAL FACILITY MONITORING STATION					
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	10	8	10	3	2
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	49.7	47.4	62.4	18.0	12.6
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	1	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	2	0	0	0	0
Max. Daily ($\mu g/m^3$)	170.0	99.0	81.0	57.0	56.0
State Annual Average ($\mu g/m^3$)	36.6	31.2	34.2	29.8	25.9
Federal Annual Average ($\mu g/m^3$)					

SOURCE: State of California 2012.

Na = Not available; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter

*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

ozone problem. More strict automobile emission controls, including more efficient automobile engines, have played a large role in why ozone levels have steadily decreased.

In the SDAB overall, during the five-year period of 2007 to 2011, the former national 1-hour ozone standard of 0.12 parts per mission (ppm) was exceeded 1 day in 2007 and 2 days in 2008. The stricter state 1-hour ozone standard of 0.09 ppm was exceeded 21 days in 2007, 18 days in 2008, 8 days in 2009, 7 days in 2010, and 5 days in 2011 (see Table 5.3-2).

The 1-hour state standard for ozone of 0.09 ppm was exceeded 2 days in 2008, 1 day in 2009, and 1 day in 2011 at the Otay Mesa–Paseo International monitoring station during the five-year period of 2007 to 2011.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a nonattainment area for the previous (1997) national 8-hour standard and is recommended as a nonattainment area for the revised (2008) national 8-hour standard of 0.075 ppm.

In the SDAB overall, during the five-year period of 2007 to 2011 the former national 8-hour ozone standard of 0.08 ppm was exceeded 7 days in 2007, 11 days in 2008, 4 days in 2009, 1 day in 2010, and 3 days in 2011. The revised national 8-hour standard of 0.075 was exceeded 27 days in 2007, 35 days in 2008, 24 days in 2009, 14 days in 2010, and 10 days in 2011. The stricter State 8-hour ozone standard of 0.07 ppm was exceeded 50 days in 2007, 69 days in 2008, 47 days in 2009, 21 days in 2010, and 33 days in 2011.

The previous national 8-hour standard of 0.08 ppm was exceeded 1 day in 2008 and the revised national 8-hour standard of 0.075 ppm was exceeded 2 days in 2008 at the Otay Mesa-Paseo International monitoring station during the five-year period from 2007 to 2011. The stricter state 8-hour ozone standard of 0.07 ppm was exceeded on 1 day in 2007, 3 days 2008, and 1 day in 2011.

Not all of the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from the Los Angeles Basin and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced O_3 levels in the SDAB.

Actions that have been taken in the SDAB to reduce O_3 concentrations include:

- **TCMs, if vehicle travel and emissions exceed attainment demonstration levels.** TCMs are strategies that will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.

- **Enhanced motor vehicle inspection and maintenance program.** The smog-check program is overseen by the Bureau of Automotive Repair. The program requires most vehicles to pass a smog test once every two years before registering in the state of California. The smog-check program monitors the amount of pollutants automobiles produce. One focus of the program is identifying "gross polluters," or vehicles that exceed two times the allowable emissions for a particular model. Regular maintenance and tune-ups, changing oil, and checking tire inflation can improve gas mileage and lower air pollutant emissions. It can also reduce traffic congestion due to preventable breakdowns, further lowering emissions.

- **Air Quality Improvement Program (AQIP).** The AQIP, established by AB 118, is a voluntary incentive program administered by the CARB to fund clean vehicle and equipment projects, research on biofuels production and the air quality impacts of alternative fuels, and workforce training.

b. Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for carbon monoxide (County of San Diego 1998). Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003. As shown in Tables 5.3-2 and 5.3-3, the state and national standards have not been exceeded at the Otay Mesa monitoring stations or the SDAB during the five-year period from 2007 to 2011.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as "CO hot spots" and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

c. Particulate Matter Less than 10 Microns

PM_{10} is particulate matter with an aerodynamic diameter of 10 microns or less. Ten microns is about one-seventh of the diameter of a human hair. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Sources

of PM_{10} emissions in the SDAB consist mainly of urban activities, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

Under typical conditions (i.e., no wildfires) particles classified under the PM_{10} category are mainly emitted directly from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include windblown dust, salts, brake dust, and tire wear (County of San Diego 1998). For several reasons hinging on the area's dry climate and coastal location, the SDAB has special difficulty in developing adequate tactics to meet present state particulate standards.

The SDAB is designated as federal unclassified and state non-attainment for PM_{10}. The measured federal PM_{10} standard was exceeded once in 2007 and once in 2008 in the SDAB. The 2007 exceedance occurred on October 21, 2007, at a time when major wildfires were raging throughout San Diego County. Consequently, this exceedance was likely caused by the wildfires and would be beyond the control of the SDAPCD (CARB 2010d). As such, this event is covered under the EPA's Natural Events Policy that permits, under certain circumstances, the exclusion of air quality data attributable to uncontrollable natural events (e.g., volcanic activity, wild land fires, and high wind events). The 2008 exceedance did not occur during wildfires and is not covered under this policy. The stricter state standard was exceeded a calculated number of days of 158.6 days in 2007, 163.4 days in 2008, 146.4 days in 2009, 136 days in 2010, and 138.5 days in 2011. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. Particulate measurements are collected every six days.

At the Otay Mesa-Paseo International monitoring station, the national 24-hour PM_{10} standard was exceeded one day in 2007 and one day in 2008 during the years 2007 through 2011. The stricter state 24-hour PM_{10} standard was exceeded 27 days in 2007, 30 days in 2008, 25 days in 2009, 22 days in 2010, and 23 days in 2011.

At the Otay Mesa-Donovan Correctional Facility monitoring station, the national 24-hour PM_{10} standard was exceeded one day in 2007 during the years 2007 through 2011. The stricter state 24-hour PM_{10} standard was exceeded 10 days in 2007, 8 days in 2008, 10 days in 2009, 3 days in 2010, and 2 days in 2011.

d. Particulate Matter Less than 2.5 Microns

Airborne, inhalable particles with aerodynamic diameters of 2.5 microns or less have been recognized as an air quality concern requiring regular monitoring. Federal regulations required that $PM_{2.5}$ monitoring begin January 1, 1999 (County of San Diego 1999). The Otay Mesa monitoring stations do not monitor $PM_{2.5}$. Federal $PM_{2.5}$ standards established in 1997 include an annual arithmetic mean of 15 micrograms per cubic meter ($\mu g/m^3$) and a 24-hour concentration of 65 $\mu g/m^3$. As discussed above, the 24-hour $PM_{2.5}$ standard has been

changed to 35 $\mu g/m^3$. However, this does not apply to the monitoring in 2005 or 2006. State $PM_{2.5}$ standards established in 2002 are an annual arithmetic mean of 12 $\mu g/m^3$.

The SDAB was classified as an attainment area for the previous federal 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$ and has been classified as an attainment area for the revised federal 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ (U.S. EPA 2004, 2009). The SDAB is a non-attainment area for the State $PM_{2.5}$ standard (CARB 2009).

In the SDAB overall the new national standard of 35 $\mu g/m^3$ was exceeded a calculated number of days of 11.4 days in 2007, 3.5 days in 2008, 3.4 days in 2009, 2 days in 2010, and 3 days in 2011. Additionally, although the federal annual standard was not exceeded during the period from 2007 through 2011, the State annual standard was routinely exceeded during this period in the SDAB overall.

e. Nitrogen Dioxide, Sulfur Dioxide, and Lead

The national and state standards for NO_2, SO_x, and previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for hydrogen sulfides, sulfates, and visibility reducing particles.

g. Odors

The State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51 prohibit emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the “considerable” number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a “considerable” number of persons or businesses in the area will be considered to be a significant, adverse odor impact.

Every use and operation shall be conducted so that no unreasonable heat, odor, vapor, glare, vibration (displacement), dust, smoke, or other forms of air pollution subject to SDAPCD standards shall be discernible at the property line of the parcel upon which the use or operation is located. Therefore, any unreasonable odor discernible at the property line of a future project site within the CPU area will be considered a significant odor impact.

5.3.2 Significance Determination Thresholds

Based on the City's CEQA Significance Determination Thresholds, impacts related to air quality and odor would be significant if the CPU would:

1. Obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP;
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state AAQS (including the release of emissions which exceed quantitative thresholds for ozone precursors);
4. Expose sensitive receptors to substantial pollutant concentration, including air toxics such as diesel particulates; or
5. Create objectionable odors affecting a substantial number of people.

5.3.3 Issue 1: Plan Consistency

Would the CPU obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP?

5.3.3.1 Impacts

As described above, the CCAA requires areas that are designated nonattainment for ozone, CO, SO_2, and NO_2 to prepare and implement plans to attain the standards by the earliest practicable date. The SDAB is designated nonattainment for ozone, PM_{10}, and $PM_{2.5}$; however, the CCAA does not require a plan for PM_{10} or $PM_{2.5}$. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the state ozone standards. The two pollutants addressed in the RAQS are volatile organic compounds (VOCs) and nitrogen oxide (NO_X), which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and industrial growth create challenges in controlling emissions to maintain and further improve air quality. The RAQS, in conjunction with the TCM, were most recently adopted in 2009 as the air quality plan for the region. The basis for these plans is the distribution of population in the region as projected by SANDAG. Updating the adopted Otay Mesa Community Plan to change development potential would, necessarily, result in an inconsistency between the current air quality plans (that are based on the adopted community plan) and the CPU.

Relative to the adopted community plan upon which the RAQS is based, the CPU would:

- increase the number of residential units by approximately 51 percent;
- decrease the amount of land designated for commercial development by 30 percent;
- increase the amount of land designated for institutional development by 13 percent; and
- decrease the amount of land designated for industrial use by 15 percent.

Development associated with the CPU would result in approximately 1,045,025 vehicle trips per day, which is 121,413 fewer trips than what would occur under the adopted community plan (Urban Systems Associates 2012).

As discussed under Section 5.3.4, while area and mobile emissions under the CPU would exceed project-level thresholds, the emissions would be less than area and mobile emissions identified under the adopted community plan for all criteria pollutants. As the primary goal of the RAQS is to reduce ozone precursor emissions and the CPU would result in lower emissions than the existing plan, the CPU would not obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP.

5.3.3.2 Significance of Impacts

Growth and traffic projections as well as development patterns are used to develop the emissions estimates identified in the RAQS, and are the basis for determining required reductions to meet national and State ambient air quality standards. The changes in the land uses under the CPU and the traffic generated under the CPU would result in fewer emissions than the adopted community plan upon which the current RAQS is based. Thus, it can be concluded that the CPU would not obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP and impacts would be less than significant.

5.3.3.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

5.3.3.4 Significance After Mitigation

Impacts would be less than significant.

5.3.4 Issue 2: Regional Air Quality Standards

Would the CPU result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Would the CPU result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state AAQS (including the release of emissions which exceed quantitative thresholds for ozone precursors)?

5.3.4.1 Impacts

Air quality impacts would result from the construction and operation of a project. Construction impacts are short-term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts would occur on two levels: regional impacts resulting from growth-inducing development or local hot-spot effects stemming from sensitive receptors being placed close to highly congested roadways. In the case of the CPU, operational impacts are primarily due to emissions within the basin from mobile sources associated with the vehicular travel along the roadways within the CPU area.

Air emissions were calculated using the California Emission Estimator Model (CalEEMod) computer program (SCAQMD 2011). CalEEMod is a tool used to estimate air emissions resulting from land development projects in the state of California. The model generates emissions from three basics sources: construction sources, area sources (e.g., fireplaces and natural gas heating), and operational sources (e.g., traffic).

a. Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

Air pollutants generated by the construction of projects within the CPU area would vary depending upon the number of projects occurring simultaneously and the size of each individual project. Construction-related pollutants result from dust raised during demolition and grading, exhaust emissions from construction vehicles, and products used during construction. Construction operations are subject to the requirements established in Regulation 4, Rules 52 and 54, of the SDAPCD's rules and regulations, which are intended to limit and control fugitive dust emissions.

The exact number and timing of future development projects that would occur under the CPU are unknown. However, for projects located within the predominantly developed

portions of the CPU, it can be assumed that projects would be relatively small in terms of land area, some of which would involve the demolition of existing structures or improvements. Conversely, projects located in the undeveloped portions of the CPU area would involve relatively large tracts of land with limited demolition activities.

To simulate the range of potential air emissions that would occur, two hypothetical projects were evaluated. These hypothetical projects include a 1-acre multi-family residential project that may be typical in the more developed portions of the CPU area and the development of a large scale project that would occur in the undeveloped portions of the CPU area. Table 5.3-4 represents a reasonable worst-case scenario for each type of project based on the parameters detailed in Appendix C.

TABLE 5.3-4
SAMPLE DAILY CONSTRUCTION EMISSIONS

Pollutant	Small Project	Large Project	Threshold
ROG	76	90	137
NO_X	45	111	250
CO	27	59	550
SO_2	0	0	250
PM_{10}	8	23	100
$PM_{2.5}$	5	15	100[1]

[1]The $PM_{2.5}$ threshold is based on the PM_{10} standard and the methodology presented in the *Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds* (SCAQMD 2006).
NOTE: The total PM emissions indicated in the CalEEMod output files do not equal the sum of the individual source emissions.

The emissions summarized in Table 5.3-4 are the maximum daily emissions for each pollutant that would occur during any phases of construction. In each case the emissions would be below the threshold.

b. Operational Emissions

For comparative purposes, air emissions were calculated for the adopted community plan in the year 2030 and the CPU in the year 2030 using CalEEMod with parameters specified in Appendix C. These emissions are then compared to the project-level thresholds.

The air quality emissions analysis for the CPU was performed consistent with standard methodology. CEQA air quality analyses typically do not quantify the existing emission sources[1], such as existing houses, businesses, etc., but instead rely on the ambient air quality concentrations monitored by the local air district for the existing condition, as this

[1]In addition, the models used to quantify air emissions in CEQA analysis, i.e. URBEMIS and CalEEMod, have general assumptions for operation emissions from area sources, such as space heaters, water heaters, etc., that these sources meet certain current manufacturing requirements, which would not have been required for the existing land uses.

includes all sources in the basin. Unlike some other issue areas, such as traffic, existing sources are not discounted from the project emissions, e.g., existing – project = net project; instead air quality analyses only consider the emissions of the project relative to a set of limits/thresholds. However, project-level standards, i.e. mass emission limits, e.g., X pounds per day/X tons per year[2], are not appropriate for a program-level analysis, as the thresholds are conservative and intended to ensure many individual projects would not obstruct the timely attainment of the national and state ambient air quality standards. As a general principle, discretionary, program-level planning activities, such as general plans, community plans, specific plans, etc., would be evaluated for consistency with the local air quality plan. Whereas the project-level thresholds would be applied to individual project-specific approvals, such as a proposed development project. Therefore, the analysis of the CPU is based on conformance with the RAQS, which is based on the future emissions estimates and related to attainment strategies on the assumptions of the adopted community plan. The analysis looks at the emissions of the CPU in relation to the adopted community plan to determine if the emissions would exceed the emissions estimates included in the RAQS and obstruct attainment, which would potentially result in an exceedance of an ambient air quality standard and could result in the temporary or permanent exposure of persons to unhealthy concentrations of pollutants.

A summary of the modeling results, which includes both mobile and area source emissions, is shown in Table 5.3-5. As shown, total future emissions of all pollutants under the CPU are projected to be greater than project-level thresholds. This is due to future development associated with buildout. Total future emissions under the CPU are projected to be less than under the adopted community plan. This is primarily related to reductions in traffic volumes under the CPU, which is due to the decrease in development intensity under the CPU when compared to the adopted community plan.

2The thresholds are typically based on the EPA's general conformity requirements, which state that projects that do not exceed certain emission levels would have almost no effect on air quality. The emission limits are only applied to nonattainment pollutants. For San Diego this would be 100 tons/year for CO and O_3 (NOX and ROG), however, the City has adopted even more stringent thresholds based on the APCD's trigger limits, which requires an air quality study to be conducted for the APCD if a new stationary source exceeds the levels.

TABLE 5.3-5
AVERAGE DAILY OPERATIONAL EMISSIONS TO THE SAN DIEGO AIR BASIN
(pounds/day)

Season/ Pollutant	Adopted Community Plan (Year 2030)			CPU (Year 2030)		
	Area Source	Mobile Source	Total Emissions	Area Source	Mobile Source	Total Emissions
Summer						
ROG	3,145	2,769	5,914	2,893	2,725	5,619
NOx	5,605	12	5,617	5,166	18	5,184
CO	25,555	1,032	26,587	23,707	1,563	25,270
SO[1]	81	0	81	76	0	76
PM_{10}	9,246	6	9,252	8,644	9	8,653
$PM_{2.5}$	505	6	511	471	9	480
Winter						
ROG	3,318	2,769	6,087	3,059	2,725	5,784
NOx	5,785	12	5,797	5,338	18	5,356
CO	25,390	1,032	26,422	23,485	1,563	25,048
SO[1]	76	0	76	71	0	71
PM_{10}	9,248	6	9,254	8,646	9	8,655
$PM_{2.5}$	507	6	512	473	9	481

[1]Emissions calculated by CalEEMod are for SO_2.

5.3.4.2 Significance of Impacts

a. Construction Emissions

As demonstrated by the analysis of hypothetical projects, air emissions due to construction would not exceed the applicable thresholds. However, if several of these projects were to occur simultaneously, there is the potential for multiple projects to exceed significance thresholds.

The projects discussed above are illustrative only. Approval of the CPU would not permit the construction of any individual project, and no specific development details are available at this time. The thresholds presented above are applied on a project-by-project basis and are not necessarily intended for assessment of impacts from large or regional plans. The information is presented to illustrate the potential scope of air impacts for projects that would be developed under the plan. While it is not anticipated that construction activities under the CPU would result in significant air quality impacts, as air emissions from the future developments within the CPU area cannot be adequately quantified at this time, this impact would be significant.

b. Operational Emissions

While emissions under the CPU would exceed project-level thresholds, which would potentially have a significant air quality impact when compared to the existing condition, the CPU would result in lower emissions than the adopted plan.

The CPU would be consistent with adopted regional air quality improvement plans and would represent a decrease in emissions used to develop the SDAPCD RAQS. However, as air emissions from the future developments within the CPU area cannot be adequately quantified at this time, this impact would be significant.

5.3.4.3 Mitigation Framework

The goals, policies, and recommendations of the City combined with the federal, state, and local regulations provide a framework for developing project-level air quality protection measures for future discretionary projects. The City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA as well as an analysis of those projects for consistency with the goals, policies, and recommendations of the General Plan and CPU. In general, implementation of the policies in the CPU and General Plan would preclude or reduce air quality impacts. Compliance with the standards is required of all projects and is not considered to be mitigation. However, it is possible that for certain projects, adherence to the regulations would not adequately protect air quality, and such projects would require additional measures to avoid or reduce significant air quality impacts. These additional measures would be considered mitigation.

Where mitigation is determined to be necessary and feasible, these measures shall be included in a Mitigation Monitoring and Reporting Program for the project.

Mitigation measures AQ-1 and AQ-2 shall be implemented to reduce project-level impacts. These measures shall be updated, expanded and refined when applied to specific future projects based on project-specific design and changes in existing conditions, and local, state and federal laws.

AQ-1: For projects that would exceed daily construction emissions thresholds established by the City of San Diego, best available control measures/technology shall be incorporated to reduce construction emissions to below daily emission standards established by the City of San Diego. Best available control measures/technology shall include:

a. Minimizing simultaneous operation of multiple pieces of construction equipment;

b. Use of more efficient, or low pollutant emitting, equipment, e.g. Tier III or IV rated equipment;

c. Use of alternative fueled construction equipment;

d. Dust control measures for construction sites to minimize fugitive dust, e.g. watering, soil stabilizers, and speed limits; and

e. Minimizing idling time by construction vehicles.

AQ-2: Development that would significantly impact air quality, either individually or cumulatively, shall receive entitlement only if it is conditioned with all reasonable mitigation to avoid, minimize, or offset the impact. As a part of this process, future projects shall be required to buffer sensitive receptors from air pollution sources through the use of landscaping, open space, and other separation techniques.

5.3.4.4 Significance after Mitigation

While the mitigation framework and CPU policies would reduce emissions, future projects may not be able to reduce air emissions below the City's threshold. Therefore, impacts would remain significant and unavoidable.

5.3.5 Issue 3: Sensitive Receptors

Would the CPU expose sensitive receptors to substantial pollutant concentration, including air toxics such as diesel particulates?

5.3.5.1 Impacts

a. CO Hotspots

The SDAB was redesignated as a CO attainment area subsequent to the passage of the 1990 federal CAA amendments. According to the *Transportation Project-Level Carbon Monoxide Protocol* (University of California Davis) (CO protocol), in maintenance areas, only projects that are likely to worsen air quality necessitate further analysis (University of California, Davis 1997). The Protocol indicates projects may worsen air quality if they worsen traffic flow, defined as increasing average delay at signalized intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. Unsignalized intersections are not evaluated as they are typically do not carry significant volumes or have long delays and are unlikely to result in a CO hotspot.

As indicated in the traffic study, 28 intersections were found to operate at LOS E or worse. Based on the intersection operations, delay, and volume, the three intersections with the greatest potential to result in a CO hot spot were selected for a detailed CO Hot Spot analysis. These intersections are:

- Otay Mesa Road and Innovative Drive
- Old Otay Mesa Road and Beyer Boulevard
- Otay Valley Road and Heritage Road

In accordance with the CO Protocol, if CO concentrations at these three intersections do not result in CO hot spots, it is can be determined that no CO hot spots would occur at the remaining twenty-five intersections.

CALINE4, a computer air emission dispersion model, was used to calculate CO concentrations at receivers located on the corners of each intersection. These concentrations were calculated from various inputs including traffic volumes, from the CPU traffic analysis, and emission factors from EMFAC2011 (CARB 2011).

As shown in Table 5.3-6, concentrations at these three intersections, under the CPU, would not exceed the ambient air quality standards. Therefore, the CPU would result in less than significant impacts with respect to CO hot spots.

TABLE 5.3-6
MAXIMUM BUILDOUT CO CONCENTRATIONS UNDER CPU

Intersection	1-Hour CO ppm	1-Hour CO Standard CAAQS/ NAAQS	8-Hour CO ppm[1]	8-Hour CO Standard CAAQS/ NAAQS
Otay Mesa Rd. and Innovative Wy.	5.7	9.0/9	4.0	20/35
Old Otay Mesa Rd. and Beyer Blvd.	5.7		4.0	
Otay Valley Rd. and Heritage Rd.	8.4		5.9	

[1]8-hour concentrations developed based on a 0.7 persistence factor.

b. Diesel Particulate Matter

Risk assessment is the process by which contaminants of concern are selected for investigation and includes a review of the chemicals that are potentially released to the atmosphere. Following is an analysis of diesel particulate emissions from the vehicular traffic on major roadways and freeways in the CPU area.

Two types of adverse health effects are generally considered in health risk assessments: carcinogenic and non-carcinogenic. Chemicals that potentially produce carcinogenic effects have been shown or are suspected to produce tumors in animals or humans. Therefore, carcinogenic effects are assessed in terms of incremental or excess risks. Non-carcinogenic effects, such as liver or kidney damage, would be either reversible or permanent. Exposure to these chemicals in amounts less than a threshold level would result in no adverse health effects.

Two general types of health effects are considered: potential carcinogenic risks due to chronic (long-term) exposure and potential non-carcinogenic health impacts following chronic and acute (short-term) exposure. For this assessment, only long-term carcinogenic and long-term non-carcinogenic (chronic) risks resulting from diesel particulate matter exposure are evaluated. Acute health risks due to diesel particulate matter exposure are less than significant according to the air quality technical report.

Carcinogenic Risk

As explained more fully in Appendix C, the incremental cancer risk is the likelihood (above the background cancer rate in the general population) that an individual would develop cancer during his or her lifetime as a result of exposure to a substance.

Under Proposition 65, the State of California considers an incremental excess cancer risk of less than 10 in 1,000,000 (10^{-5}) to be acceptable for involuntary exposure. In accordance with the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill), agencies in California have commonly established 10 in 1,000,000 as the risk threshold for notification; this threshold applies to the summed risk from all compounds emitted from a facility.

Figure 5.3-2 shows isopleths of the residential incremental cancer risk under the CPU and the locations of the modeled maximally exposed individual resident (MEIR) and maximally exposed individual worker (MEIW) for the CPU land uses. At the point of maximum impact (PMI), the MEIR average residential incremental cancer risk due to diesel particulates from the area traffic is 2.8 in one million; the 80th percentile residential incremental risk is 3.1 in one million; and the high-end residential incremental risk is 4.0 in one million. At the PMI for the MEIW, the worker incremental cancer risk due to diesel particulates is 0.57 in one million. This is below the 10 in one million threshold.

Non-carcinogenic Risk

The results of the modeling analysis, as detailed in Appendix C, indicate that the maximum chronic hazard index at any of the modeled receivers is 0.19, which is below the significance threshold of 1.0. The location of this maximum impact occurs in the eastern portion of the CPU, south of Sempre Viva Road and east of SR-905, which is designated heavy commercial.

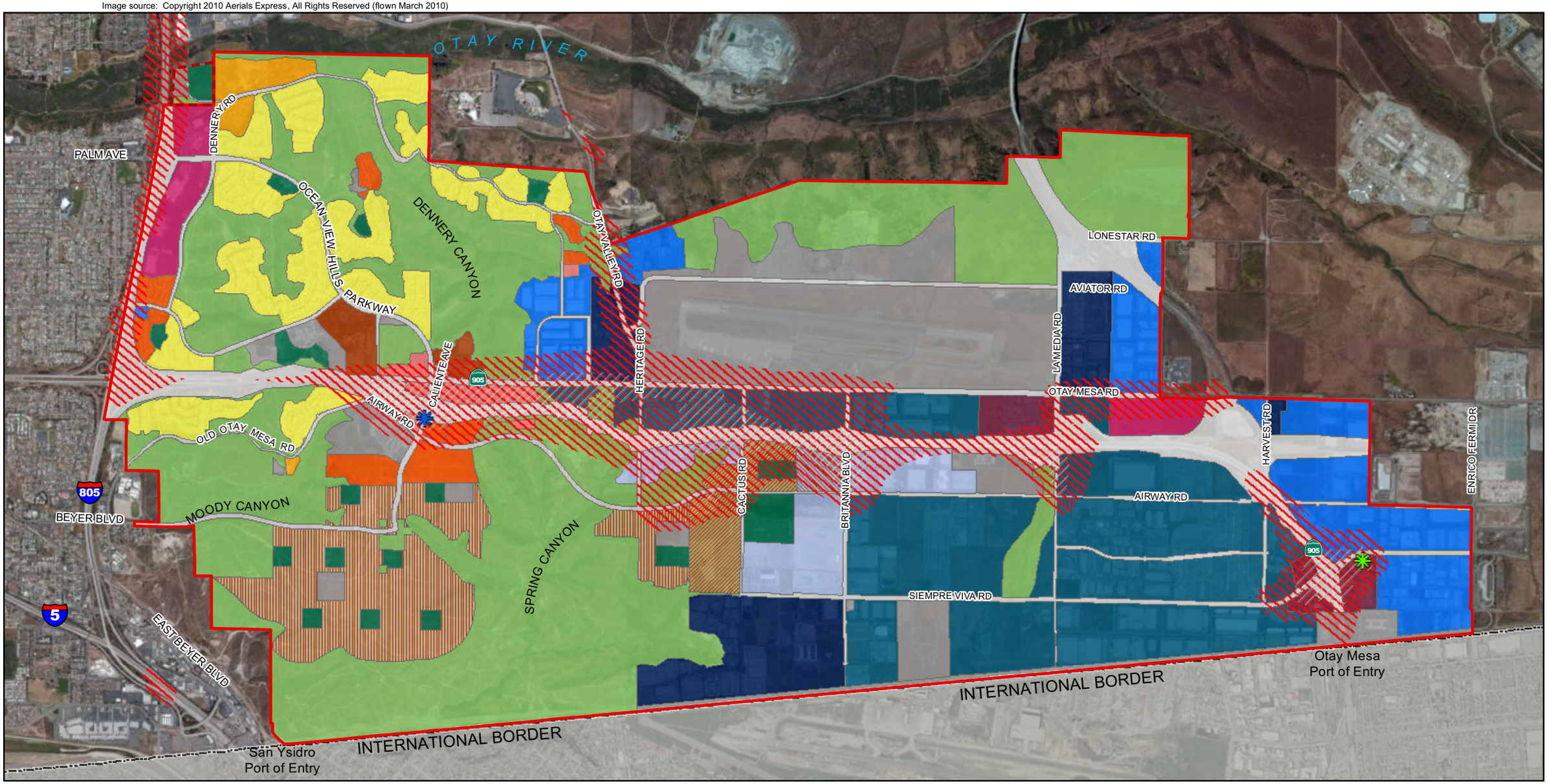
c. Stationary Sources

The CPU includes industrial uses which could generate air pollutants. Without appropriate controls, air emissions associated with planned industrial uses would represent a significant adverse air quality impact.

Stationary sources also contribute to air pollution in the SDAB Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SDAPCD.

The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, AB 2588 was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely

Image source: Copyright 2010 Aerials Express, All Rights Reserved (flown March 2010)



Otay Mesa Community Plan Boundary
Not A Part
Worker Exposure 1 in 1 million
Residential Exposure 1 in 1 million

CPU Receptors

MEIR
MEIW

Proposed Land Use Plan

Open Space, Parks, Institutional

Open Space
Parks
Institutional

Village Centers

Community Village
Neighborhood Village

Residential

Low
Low Medium
Medium
Medium High

Commercial - Residential Prohibited

Community Commercial
Regional Commercial
Heavy Commercial

Industrial

Business Park - Office Permitted
Business and International Trade
Light Industrial
Heavy Industrial
Business Park - Residential Permitted

Other

Right-of-Way

0 Feet 3,000

M:\JOBS2\3957-1\common_gis\2012\fig5.3-2.mxd 8/29/2013 fmm

FIGURE 5.3-2
Incremental Cancer Risk and
MEIR/MEIW Community Plan Update

THIS PAGE IS INTENTIONALLY BLANK.

released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

In accordance with AB 2588, any new facility proposed that would have the potential to emit toxic air contaminants would be required to assess air toxic problems that would result from their facility's emissions. Larger industrial facilities are required to provide information regarding emission inventories and health risk assessments. If adverse health impacts exceeding public notification levels are identified, the facility would provide public notice, and if the facility poses a potentially significant public health risk, the facility must submit a risk reduction audit and plan to demonstrate how the facility would reduce health risks.

d. Collocation

The CPU contains several areas where residential and other sensitive uses would be located adjacent to industrial and commercial uses. These sensitive land uses would be exposed to toxic air emissions that have the potential to be generated with operation of certain commercial and industrial uses. The CARB and APCD provide guidance on siting land uses to avoid health risks and avoid nuisances. A common component of such guidance is the recommendation to site sensitive land uses outside specified buffers adjacent to or surrounding major emitters or facilities of concern. Table 5.3-7 summarizes the siting recommendations applicable to the CPU area. CARB recommends that these buffers be considered when evaluating land use and collocation decisions.

TABLE 5.3-7
CARB LAND USE SITING CONSTRAINTS

Source Category	Recommended Buffer Distance (feet)
Distribution Centers (that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week)	1,000
Chrome Platers	1,000
Dry Cleaners using Perchloroethylene (1 machine)	300
Dry Cleaners using Perchloroethylene (2 machines)	500
Dry Cleaners using Perchloroethylene (3 or more machines)	Requires consultation with APCD
Large Gas Station (3.6 million gallons or more per year)	300
Other Gas Stations	50

SOURCE: CARB 2005.

5.3.5.2 Significance of Impacts

a. CO Hotspots

As referenced in Section 5.3.5.1, the hot spot analysis indicates that the increases of CO due to the CPU would be below the federal and state 1-hour and 8-hour standards. Therefore, there would be no harmful concentrations of CO and localized air quality emission would not exceed applicable standards, and would not result in a significant impact to sensitive receptors.

b. Diesel Particulate Matter

Carcinogenic Risk

Based on the analysis and modeled results, the development of future land uses within the CPU area would not expose future residents or workers to significant cancer risk from traffic generated diesel exhaust emissions.

There is no adopted standard for evaluating the diesel exhaust emission impacts due to vehicles traveling on local roadway and freeways. Therefore, based on available thresholds, the significance threshold of 10 in one million was used in evaluating the potential impacts from the vehicular sources in this analysis. Based on the analysis, the incremental cancer risk increase under the CPU would be 3.4 in a million or less at the MEIR and less than 1 in a million at the MEIW. Thus, the risk at any receptor would be less than 10 in 1 million.

Therefore, incremental cancer risks to sensitive receptors from diesel exhaust emissions would be less than significant at a program-level.

Non-carcinogenic Risk

Chronic risks resulting from diesel exhaust emissions associated with the vehicles operating within and adjacent to the CPU are projected to be less than significant.

c. Stationary Sources

The CPU includes industrial uses which could generate air pollutants. Without appropriate controls, air emissions associated with planned industrial uses would represent a significant adverse air quality impact.

Any new facility proposed that would have the potential to emit toxic air contaminants would be required to evaluate toxic air problems resulting from their facility's emissions.

If the facility poses a potentially significant public health risk, the facility would submit a risk reduction audit and plan to demonstrate how the facility would reduce

health risks. Specific project-level design information would be needed to determine stationary source emission impacts. Therefore, at the program-level, impacts would be potentially significant.

d. Collocation

The CPU would place residential, commercial, and industrial uses in proximity to one another, which would have potential air quality impacts associated with the collocation of incompatible land uses, as described in section 5.3.5.1 (d). Air quality impacts would be associated with exposure to pollutants from the operation of the facility, which can include DPM emitted by heavy trucks and diesel engines, chromium emitted by chrome platers, and perchloroethylene emitted by dry cleaning operations. The CPU contains policies and performance standards to avoid and/or reduce potential impacts associated with collocation of diverse land uses. Future development projects would be required to comply with the collocation policies of the General Plan and CPU, which are necessary to reduce or avoid potential air quality impacts. These policies and standards would include but not be limited to the special policies and performance standards for residential-industrial interface areas, truck circulation, and industrial design, as well as the relevant and mandatory air district, state, and federal controls on toxic air emission sources. While compliance with the CPU and General Plan policies, along with local, state, and federal regulations would reduce potential impacts, future projects may result in sensitive uses (residential uses, schools, parks being located within the buffer distances of the facilities described in Table 5.3-7, and therefore sensitive receptors would be exposed to toxic air emissions. In this case, impacts would be significant.

5.3.5.3 Mitigation Framework

a. CO Hotspots

Impacts would be less than significant; therefore, no mitigation is required.

b. Diesel Particulate Matter

Impacts would be less than significant; therefore, no mitigation is required.

c. Stationary Sources

AQ-3: Prior to the issuance of building permits for any new facility that would have the potential to emit toxic air contaminants, in accordance with AB 2588, an emissions inventory and health risk assessment shall be prepared. If adverse health impacts exceeding public notification levels (cancer risk equal to or greater than 10 in 1,000,000; see Section 4.5.4.1(b)) are identified, the facility shall provide public notice to residents located within the public notification area and submit a risk

reduction audit and plan to the APCD that demonstrates how the facility would reduce health risks to less than significant levels within five years of the date the plan.

d. Collocation

AQ-4: Prior to the issuance of building permits for any project containing a facility identified in Table 5.3-7, or locating air quality sensitive receptors closer than the recommended buffer distances, future projects implemented in accordance with the CPU shall be required to prepare a health risk assessment (HRA) with a Tier I analysis in accordance with APCD HRA Guidelines and the Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines (APCD 2006; OEHHA 2003).

All HRAs shall include:

1. the estimated maximum 70-year lifetime cancer risk,
2. the estimated maximum non-cancer chronic health hazard index (HHI), and
3. the estimated maximum non-cancer acute health hazard index (HHI).

Risk estimates shall each be made for the off-site point of maximum health impact (PMI), the maximally exposed individual resident (MEIR), and the maximally exposed individual worker (MEIW). The location of each of these receptors shall be specified. The lifetime cancer risk, non-cancer chronic and acute health hazard indexes for nearby sensitive receptors shall also be reported. Cancer and non-cancer chronic risk estimates shall be based on inhalation risks. HRAs shall include estimates of population exposure, including cancer burden, as well as cancer and noncancer chronic and acute risk isopleths (contours). The HRA shall identify best available control technology (BACT) required to reduce risk to less than 10 in 1,000,000.

5.3.5.4 Significance After Mitigation

While the Mitigation Framework identified above would reduce the potential impacts associated with exposure to air toxics, no specific projects or improvements have been proposed as part of the CPU, and it cannot be determined whether the proposed mitigation would reduce all impacts to below a level of significance. Therefore, impacts related to exposure to air toxics would be significant and unavoidable.

5.3.6 Issue 4: Odors

Would the CPU create objectionable odors affecting a substantial number of people?

5.3.6.1 Impacts

There are currently no known significant odor generators on or near the project site. The Otay Landfill is located in the City of Chula Vista to the north. However, the landfill is located more than 1,000 feet from the northern CPU boundary. At this distance, the landfill would not create objectionable odors within the CPU.

Although the CPU area is adjacent to numerous industrial operations, there are no known sources of specific, long-term odors, such as waste water treatment plants or animal rendering facilities. While the CPU would allow a variety of land uses, none of the identified land uses are typically associated with the creation of objectionable odors. As the CPU does not include any new sources of odor that would affect sensitive receptors, the potential for odor impacts would be less than significant.

5.3.6.2 Significance of Impacts

Impacts associated with odors would be less than significant.

5.3.6.3 Mitigation Framework

Impact would be less than significant; therefore, no mitigation is required.

5.3.6.4 Significance After Mitigation

Impacts would be less than significant.

THIS PAGE IS INTENTIONALLY BLANK.

5.4 Biological Resources

RECON prepared a program-level biological technical report for the CPU (2013). This report is included as Appendix D of the PEIR. Secondary data sources were used for the program–level biological analysis and include the California Natural Diversity Data Base (CNDDB) (State of California 2012a); the MSCP Subarea Plan (City of San Diego 1997); and aerial photography. The base vegetation community mapping is taken primarily from SANDAG's 1995 digital file for the Multiple Species Conservation Program (MSCP). This vegetation mapping was updated using information from an aerial photograph of the area (SanGIS 2012). Updates to the vegetation map included areas that were mapped as native vegetation or agricultural, but showed as developed on the 2012 aerial photo. It should be noted that the conclusions found in the Biological Resources Technical Report for the CPU differs from those contained in this EIR section. The conclusion of "Significant and Mitigated" was determined after a comprehensive review of the CPU and associated policies, goals and zoning actions which will guide future development in the CPU area.

5.4.1 Existing Conditions

5.4.1.1 Botanical Resources

There are 15 vegetation communities and land cover types present in the CPU area. The vegetation communities and land cover types are depicted on Figure 5.4-1 and the acreages of each are summarized in Table 5.4-1. Descriptions are provided below.

TABLE 5.4-1
VEGETATION COMMUNITIES AND LAND COVER TYPES

Vegetation Community/Land Cover Type	CPU Area (acres)
Urban/developed	3,853.9
Non-native grassland	2,429.4
Diegan coastal sage scrub	1,619.0
Disturbed land	673.4
Maritime succulent scrub	540.9
Agriculture	113.2
Non-native vegetation	68.3
Riparian	23.97
Vernal pool	12.34
Basin with fairy shrimp	12.24
Mule fat scrub	5.17
Southern mixed chaparral	4.6
Freshwater marsh	1.06
Eucalyptus woodland	1.0
Alkali seep	0.53
TOTAL	9,349.08

a. Wetland Vegetation Communities

Wetland vegetation communities are dominated by plant species adapted to soils that have periods of prolonged saturation. The CPU area has five wetland vegetation communities mapped which are described below. Wetland vegetation communities are considered sensitive by the City of San Diego and resource agencies. These communities are regulated by the City and RWQCB, and some are regulated by USACE, USFWS, and CDFW.

Riparian (23.97 acres)

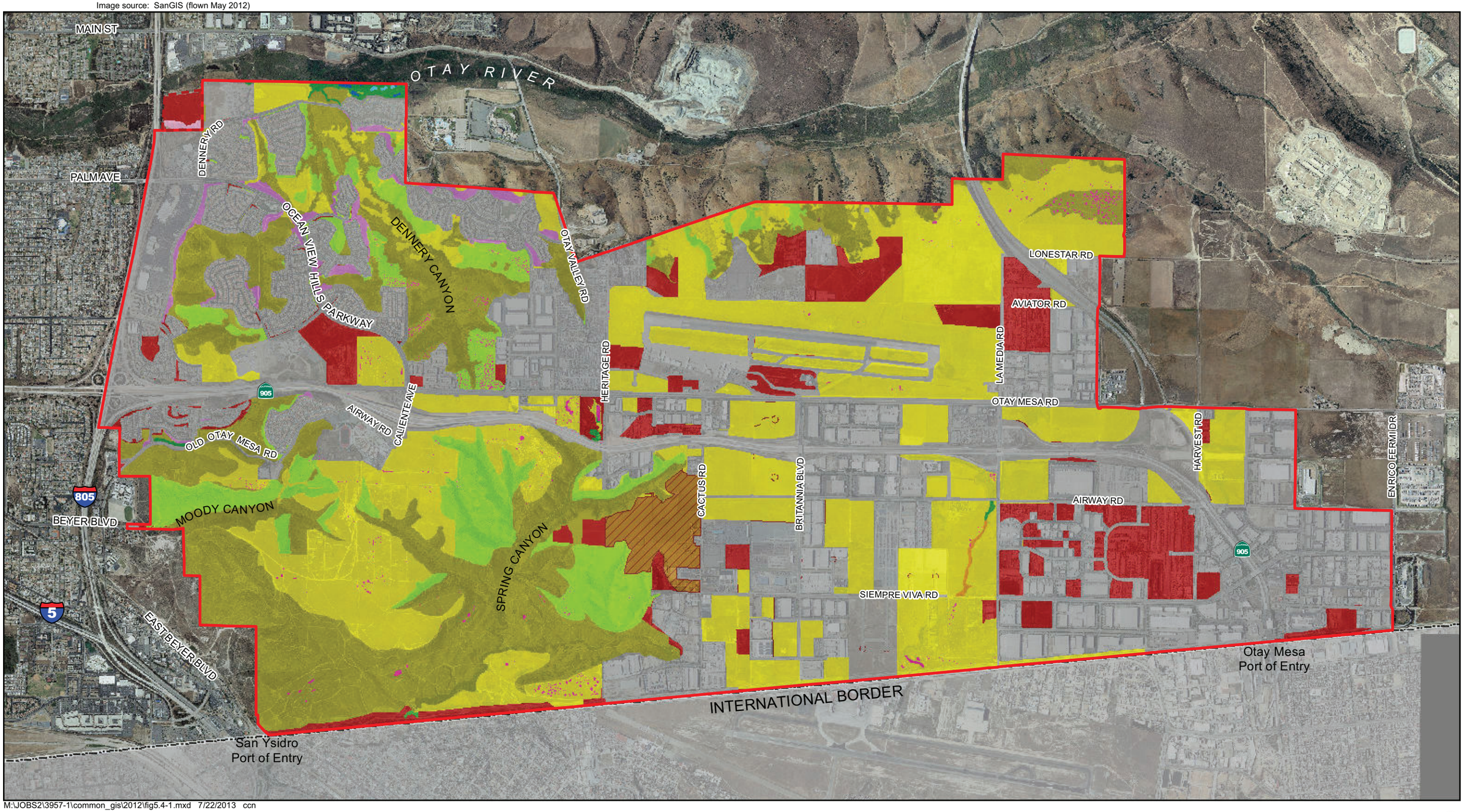
Riparian vegetation consists of riparian scrub, riparian woodland, and/or riparian forest within the CPU area. These communities vary from open to dense and are typically dominated by broad-leafed, winter deciduous trees and/or shrubs. These communities may contain an understory consisting of sub-shrubs or herbaceous species, although denser stands may prevent the development of understory vegetation. Tree species include willows (*Salix* spp.), Fremont cottonwoods (*Populus fremontii*), and/or western sycamores (*Platanus racemosa*). Scrubs are generally dominated by riparian shrubs such as mule fat (*Baccharis salicifolia*). Riparian vegetation as mapped contains areas of riparian vegetation considered disturbed. Disturbed riparian vegetation includes areas that have been impacted from human encroachment (e.g., homeless encampments or other trespasses), or by the invasion of non-native plant species from adjacent areas (e.g., salt cedar [*Tamarix* spp.]). Riparian communities are typically found along major drainages, but also may occur in smaller drainages. Within the CPU area, small patches of riparian vegetation are found within the Otay River Valley, a drainage west of La Media Road upper Dennery Canyon, and Spring Canyon.

Freshwater Marsh (1.06 acres)

This community consists of perennial emergent plants such as cattails (*Typha* spp.) and bulrush (*Scirpus* spp.). Freshwater marsh vegetation occurs in open bodies of fresh water with little current flow, such as ponds, and to a lesser extent around seeps and springs. The vegetation typically forms a closed canopy. Freshwater marshes occur in areas of permanent inundation by freshwater without active streamflow. Freshwater marsh communities, as with all wetland habitats, have been greatly reduced throughout their entire range and continue to decline as a result of urbanization.

Freshwater marsh areas include the unvegetated open water of ponds, lakes, and wide streams. These freshwater marsh areas are mainly mapped within the northwest portion of the CPU area in the Otay River Valley.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-1.mxd 7/22/2013 ccn

Otay Mesa Community Plan Boundary
Not A Part

Vegetation Communities and Land Cover Types

- Alkali Seep
- Coastal and Valley Freshwater Marsh
- Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Mule Fat Scrub
- Non-native Grassland
- Non-native Vegetation
- Riparian
- Southern Mixed Chaparral
- Vernal Pool
- Agriculture
- Disturbed Land
- Urban/Developed

0 Feet 2,500

FIGURE 5.4-1

Existing Vegetation Communities and Land Cover Types

THIS PAGE IS INTENTIONALLY BLANK.

Vernal Pool (12.34 acres) and Basins with Fairy Shrimp (12.24 acres)

San Diego mesa claypan vernal pools are shallow, isolated, seasonal wetlands distinguished from other ephemeral wetlands in the region by characteristic plant and animal species. The micro-relief surrounding vernal pools typically consists of small mima mounds or hummocks. San Diego mesa claypan vernal pools have a characteristic suite of plant and animal species. Plants in vernal pools may be aquatic or may germinate following the drying of the pool. Pool sizes range from very small to moderate (up to circa 700 square meters).

Vernal pools can be characterized as Hardpan or Claypan vernal pools which are distinguished by the soil type they occur on, the type of impervious subsoil layer, and vegetation. Claypan vernal pools are primarily found on Otay Mesa on Stockpen soils, but are also located in other areas of San Diego County and into Baja California. Hardpan vernal pools are primarily found north of Otay Mesa (Holland 1986).

Basins with fairy shrimp is a subset of vernal pools used to distinguish the presence of fairy shrimp. Some of these basins may be vernal pools while others are simply road ruts in which fairy shrimp happen to occur.

Approximately 1,266 vernal pools are located within the CPU area. Of this total, 522 are basins with fairy shrimp. These vernal pools are located on mesas in the northeastern, central-western, and southwestern portions of the CPU area. In addition, vernal pools have been mapped west of La Media Road near the International Border. The vernal pools within the CPU area are a mixture of natural and created basins, most of which are found within preserved open space areas. Vernal pool creation/restoration and enhancement has been successful in Otay Mesa as there are multiple vernal pool preserve areas located within the CPU area. The largest of these preserves is the 45-acre Dennery Canyon vernal pool preserve east of Ocean View Hills Parkway.

Otay Mesa vernal pools have historically been impacted by non-native weeds, grazing, and off-road-vehicle activity. Over the years, habitat changes caused by disturbance, including the resulting weed invasion, have diminished the suitable habitat available for ground nesting pollinators. Even though various insects have been observed visiting local vernal pool plant species, studies to determine if any of these insects are effective pollinators are lacking. Therefore referring to the visiting insects as potential pollinators is currently the best terminology to use for these observations. Visiting insects observed (either photographed or collected) on vernal pool plant species' flowers as part of vernal pool restoration monitoring efforts on the Otay Mesa include flies in the families of Sarcophagidae (flesh flies) and Calliphoridae (blow flies), various Hymenoptera including small bees and wasps, Syrphidae (hover flies) and other tiny bees, wasps, and flies, including bee flies, larger bumblebees, and sphinx moths (RECON 2005).

Mule Fat Scrub (5.17 acres)

Mule fat scrub is an early seral riparian scrub community dominated by mule fat and maintained by frequent flooding. Often this community is distributed along ephemeral streams. In the CPU area, mule fat scrub occurs in a drainage west of La Media Road.

Alkali Seep (0.53 acre)

Alkali seep typically consists of low-growing perennial herbs in permanently moist or wet alkaline seeps as part of narrow drainages or springs. This vegetation community usually consists of relatively few species and forms complete cover. In the CPU area, alkali seep occurs in the Otay River Valley.

b. Upland Communities

Upland vegetation communities occur on the drier areas of the mesa, slopes, and canyons in the CPU area. Four vegetation communities are in this category as described below.

Non-native Grassland (*2,429.4 acres*)

Non-native grassland is characterized by a dense to sparse cover of annual grasses, which may include numerous native wildflowers, particularly in years of high rainfall. Non-native grasslands contain species including, but not limited to, bromes, wild oats, ryegrasses, and fescues. Typically, this community includes at least 50 percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other native and non-native plant species may be intermixed (City of San Diego 2012a).

These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. With a few exceptions, the plants of non-native grasslands are dead through the summer-fall dry season. Non-native grassland is typically found on fine-textured, usually clay, soils, that range from being moist or waterlogged in the winter to being very dry during the summer and fall. This community is found in valleys and foothills throughout much of California at elevations below 3,000 to 4,000 feet (Holland 1986). Non-native grassland can be found dispersed throughout the CPU area,

Diegan Coastal Sage Scrub (*1,619.0 acres*)

Diegan coastal sage scrub is the southern form of coastal sage scrub comprised of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. Diegan coastal sage scrub is typically dominated by facultatively drought deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*).

This community is typically found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral. Diegan coastal sage scrub transitions to several types of chaparrals at higher elevation, or in drier more inland areas to Riversidean sage scrub. Diegan coastal sage scrub is found in coastal areas from Los Angeles County south into Baja California (Holland 1986).

Some coastal sage scrub areas in the CPU contain another co-dominant species, San Diego bur-sage (*Ambrosia chenopodiifolia*). Other coastal sage scrub areas in the CPU area have a greater percentage of non-native grassland species such as bromes (*Bromus* spp.), wild oats (*Avena* spp.), ryegrasses (*Lolium* spp.), and fescues (*Vulpia* spp.). Coastal sage scrub is found primarily in the northern and western portions of the CPU area both in large acreages and in smaller, more isolated patches.

Maritime Succulent Scrub (*540.9 acres*)

Maritime succulent scrub is a low (two to three feet high), open (25-75 percent cover) vegetation community dominated by drought deciduous, somewhat woody soft-leaved shrubs with a rich mixture of stem and leaf succulents (e.g., cacti). The proportion of cacti in this community is typically highest in inland areas. Ground cover is more or less devoid of vegetation between shrubs. Growth and flowering are concentrated in the spring. Maritime succulent scrub occurs on thin, rocky, or sandy soils, often on steep slopes of coastal headlands and bluffs. This type of succulent scrub transitions to southern coastal bluff scrub on more exposed headlands and bluffs and with coastal sage scrub on better developed, moister soils away from the immediate coast (Holland 1986). This vegetation community is found in the western half of the CPU area.

Maritime succulent scrub occurs along the slopes of canyons (e.g., Moody Canyon, Dennery Canyon, Spring Canyon) on the western half of the CPU area and along the north–central CPU boundary to the north of Brown Field (see Figure 5.4-1). Some areas of maritime succulent scrub are disturbed and contain an abundance of exotic invasive plant species. Disturbed maritime succulent scrub can be found within the southwestern portion of the CPU area within Spring Canyon.

Southern Mixed Chaparral (*4.6 acres*)

Southern mixed chaparral is a plant community typically dominated by broad-leaved shrubs or small trees that typically range in height range from 4 to 10 feet tall. Southern mixed chaparral is typically dominated by blue-colored lilacs including Ramona lilac (*Ceanothus tomentosus* var. *olivaceus*), chaparral whitethorn (*C. leucodermis*), and hairy ceanothus (*C.oliganthus*) and may include manzanita (*Arctostaphylos* spp.), toyon (*Heteromeles arbutifolia*), sugar bush (*Rhus ovata*), and mission manzanita (*Xylococcus bicolor*) (Holland 1986). It usually occupies canyon slopes or ravines where mesic

conditions are present. The vegetation is usually dense, with little or no understory cover, but may include patches of bare soil. Many species in this community are adapted to repeated fires by their ability to stump sprout. This vegetation community is found along the northwestern edge of the CPU area in the Otay River Valley.

c. Other Land Cover Types

Four other land cover types are present within the CPU area. All result from some sort of development, encroachment, or other human disturbance.

Urban/Developed (*3,853.9 acres*)

Areas mapped as developed include locations with residential housing, commercial, and industrial land uses. Urban/developed includes ornamental areas that have been landscaped with non-native species and are actively maintained.

Disturbed Land (*673.4 acres*)

Disturbed land includes undeveloped areas modified by activities such as grading, scraping, or off-road vehicle use. Areas mapped as disturbed are scattered throughout the CPU area, primarily in the western and the northern portion. A large portion of the southwestern corner of the CPU area, particularly within and surrounding Spring Canyon, was identified in the MSCP mapping as disturbed. However, these areas likely support some native and non-native vegetation and would require that a site-specific biological survey be conducted during the project-specific analysis to determine if any native or non-native habitats exist on-site. In addition, some of these disturbed lands may, or do, support burrowing owls (*Athene cunicularia hypugaea),* which would require site-specific protocol surveys.

Agriculture (*113.2 acres*)

This land cover type includes all agricultural land (both active and inactive). Agricultural activities are present primarily within the southern half of the CPU area, with several patches along the northern boundary of the CPU area.

Non-native Vegetation (*68.3 acres*)

Non-native vegetation consists of non-native plant species, including ornamental and/or invasive species. This land cover type occurs primarily in the northeastern portion of the CPU. However, this area likely supports some native vegetation and would need to be verified during future project-specific analyses to determine if any native or non-native habitats exist on-site.

Eucalyptus Woodland (*1 acre*)

Eucalyptus woodland is comprised of stands of eucalyptus trees (*Eucalyptus* spp.). These trees are not native to the area and are considered invasive species because of their rapid growth rate, broad cover, and allelopathic chemicals contained in their leaf litter that prevents understory species from growing. Once established, eucalyptus groves often form dense canopies that displace native habitats over time (Holland 1986). Eucalyptus woodland was mapped along the future Beyer Boulevard extension along the western edge of the CPU area and along the northern edge of the CPU area west of SR-125.

5.4.1.2 Sensitive Vegetation Communities

Sensitive vegetation communities are those communities that are of highly limited distribution. These communities may also support concentrations of sensitive plant or wildlife species. Upland communities within the MSCP are divided into four tiers of sensitivity based on rarity and ecological importance (City of San Diego 2012a). Tier I is the most sensitive and Tier IV is the least sensitivity. The sensitive vegetation communities present in the CPU area are shown on Figure 5.4-2 and summarized below.

Maritime succulent scrub is an MSCP Tier I habitat within the CPU area. Tier I is mapped primarily in the northern and western portions of the CPU area, along Dennery Canyon, Moody Canyon, Spring Canyon, and the Otay River Valley.

Diegan coastal sage scrub, in pristine or disturbed condition, is considered sensitive by federal and state resource agencies due to the scarcity of this vegetation community and the number of sensitive species associated with it. This vegetation community is categorized as a Tier II vegetation community. Tier II vegetation is mapped primarily in the western and northern portions of the CPU area, along Dennery Canyon, Moody Canyon, Spring Canyon, and the Otay River Valley.

Southern mixed chaparral is categorized as a Tier IIIA vegetation community. Tier IIIA communities, although common, are considered sensitive as they may support a variety of rare plant and animal species. Tier IIIA is mapped only in the northwestern portion of the CPU area, in the Otay River Valley.

Non-native grassland is classified as a Tier IIIB community. Tier IIIB habitat is considered less valuable than native habitat, but still provides foraging habitat for many species, particularly raptors, and may support a variety of rare plant and animal species. Tier IIIB is found in the northeastern portion and scattered in patches elsewhere in the CPU area.

All wetland vegetation communities, including vernal pools, are considered sensitive by the City of San Diego and resource agencies. These communities are regulated by the City, USFWS, and RWQCB and some are regulated by USACE and CDFW. Site-specific analysis would be required for future development implemented in accordance with the CPU to determine what agencies (City, USFWS, RWQCB, USACE or CDFW) would have regulatory authority on basins with fairy shrimp.

5.4.1.3 Sensitive Species

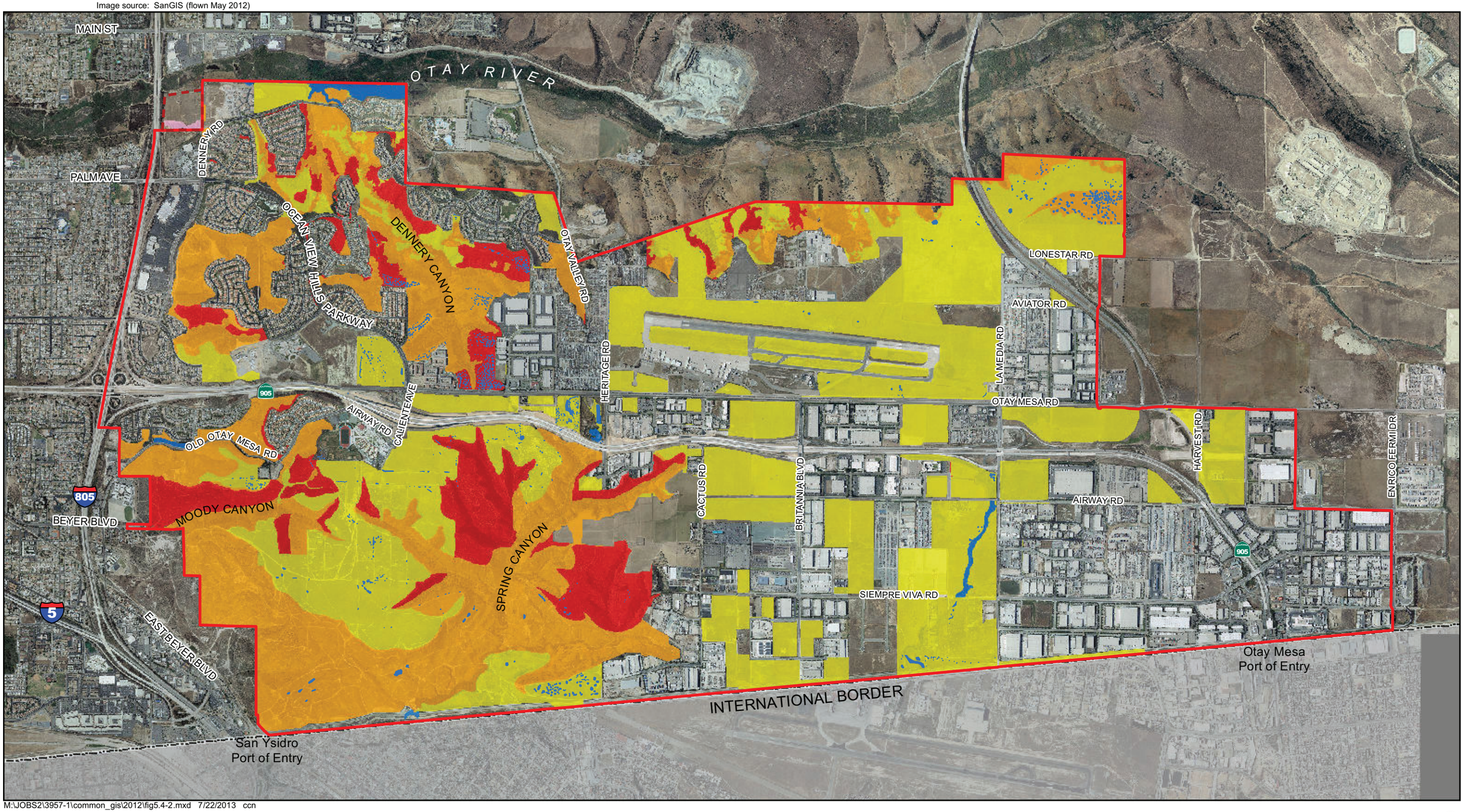
For purposes of this report, a species is considered sensitive if it: (1) is listed by state or federal agencies as threatened or endangered or is a candidate or proposed for such listing; (2) is considered rare, endangered, or threatened by the State of California and/or listed in the CNDDB (State of California 2012a, 2012b, 2011a, 2011b); (3) is a narrow endemic or covered species in the City of San Diego Multiple Species Conservation Program Subarea Plan (City of San Diego 1997); (4) has a California Native Plant Society (CNPS) Rare Plant Ranking of 1B or 2 in the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2012); or (5) is considered rare, sensitive, or noteworthy by local conservation organizations or specialists. Noteworthy plant species are considered to be those that have a CNPS Rare Plant Ranking of 3 and 4 in the *Inventory*. The sensitive plant species below are known to occur within the CPU area based on information obtained from the literature review. Sources include, but are not limited to, the CNDDB (State of California 2012a) and the reports listed in Appendix D. Precise locations of sensitive plant species would be identified through on-site reconnaissance and project-level analysis in conjunction with proposed future development.

a. Sensitive Plant Species

There are 23 sensitive plant species occurring or historically known to occur in the CPU area. These plants and their status are summarized in Table 5.4-2 and include the following.

- Eight species are state and/or federally listed: San Diego button-celery, San Diego ambrosia, Otay tarplant, San Diego thornmint, Otay mesa mint, spreading navarretia, small-leaved rose, and California Orcutt grass. Of these, one species, spreading navarretia, have designated critical habitat within the CPU area (Figure 5.4-3).
- The other 15 species have a CNPS Rare Plant Ranking of 1B, 2, 3 or 4: south coast saltscale, San Diego bur-sage, San Diego County viguiera, decumbent goldenbush, golden-spined cereus, snake cholla, San Diego barrel cactus, variegated dudleya, cliff spurge, Nuttall's scrub oak, little mousetail, California adolphia, Orcutt's bird's-beak, San Diego goldenstar, and Orcutt's brodiaea.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-2.mxd 7/22/2013 ccn

Otay Mesa Community Plan Boundary
Not A Part

Vegetation Classification

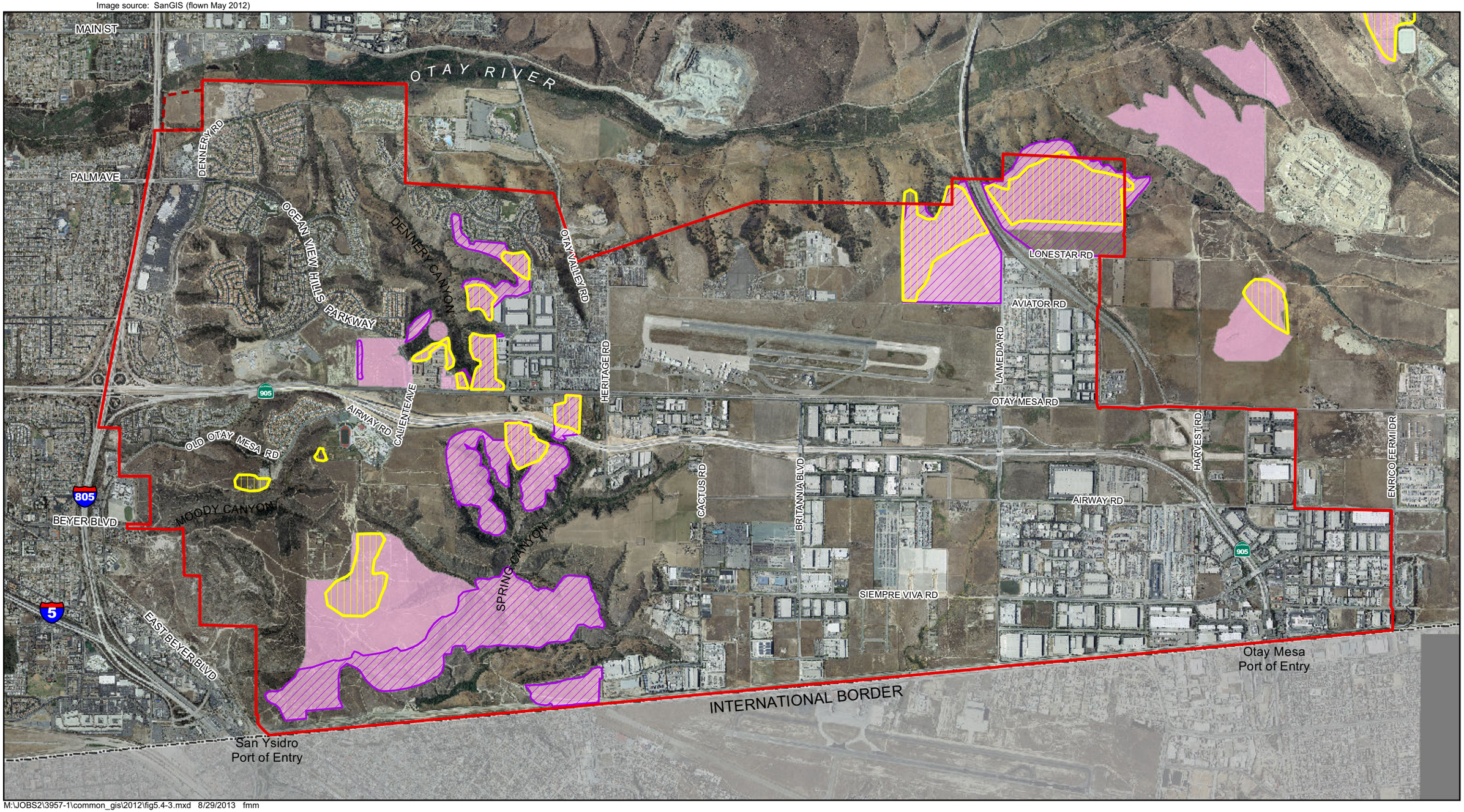
- Tier I Uplands
- Tier II Uplands
- Tier IIIA Uplands
- Tier IIIB Uplands
- Wetlands

0 Feet 2,500

FIGURE 5.4-2
Sensitive Vegetation Communities

THIS PAGE IS INTENTIONALLY BLANK.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-3.mxd 8/29/2013 fmm

Otay Mesa Community Plan Boundary
Not A Part

USFWS Critical Habitat for Spreading Navarretia
USFWS Critical Habitat for Riverside Fairy Shrimp
USFWS Critical Habitat for San Diego Fairy Shrimp

0 Feet 2,500

FIGURE 5.4-3

Location of Designated Critical Habitat for Spreading Navarretia, San Diego Fairy Shrimp and Riverside Fairy Shrimp within the Otay Mesa Community Plan Boundary

THIS PAGE IS INTENTIONALLY BLANK.

TABLE 5.4-2
SENSITIVE PLANT SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Habitat/Blooming Period
ANGIOSPERMS: DICOTS				
AMARANTHACEAE	**AMARANTH FAMILY**			
Atriplex pacifica south coast saltscale	–/–	1B.2	–	Annual herb; coastal bluff scrub, coastal dunes, coastal sage scrub, playas; blooms Mar.–Oct.; elevation less than 500 feet.
APIACEAE	**CARROT FAMILY**			
Eryngium aristulatum var. *parishii* San Diego button-celery	CE/FE	1B.1	NE, MSCP	Annual/perennial herb; vernal pools, mesic areas of coastal sage scrub and grasslands, blooms April–June; elevation less than 2,000 feet.
ASTERACEAE	**SUNFLOWER FAMILY**			
Ambrosia chenopodiifolia San Diego bur-sage	–/–	2.1	–	Shrub; coastal sage scrub, cobbly loam soils; blooms April–June; elevation 150–500 feet. Approximately 10 occurrences known in San Diego. Additional populations in Baja California, Mexico.
Ambrosia pumila San Diego ambrosia	–/FE	1B.1	NE, MSCP	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sept.; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.
Bahiopsis [=*Viguiera*] *laciniata* San Diego County viguiera	–/–	4.2	–	Shrub; chaparral, coastal sage scrub; blooms Feb.–June; elevation less than 2,500 feet.
Deinandra [=*Hemizonia*] *conjugens* Otay tarplant	CE/FT	1B.1	NE, MSCP	Annual herb; coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.
Isocoma menziesii var. *menziesii* [=var. *decumbens*] Decumbent goldenbush	–/–	1B.2	–	Shrub; chaparral, coastal sage scrub, sandy soils, often in disturbed areas; blooms April–Nov.; elevation less than 500 feet.
CACTACEAE	**CACTUS FAMILY**			
Bergerocactus emoryi Golden-spined cereus	–/–	2.2	–	Succulent; closed-cone coniferous forest, chaparral, coastal sage scrub, sandy; blooms May–June; elevation less than 1,300 feet.
Cylindropuntia [=*Opuntia*] *californica* var. *californica*] Snake cholla	–/–	1B.1	NE, MSCP	Succulent shrub; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.
Ferocactus viridescens San Diego barrel cactus	–/–	2.1	MSCP	Succulent; chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; blooms May–June; elevation less than 1,500 feet.

TABLE 5.4-2
SENSITIVE PLANT SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Habitat/Blooming Period
CRASSULACEAE	**STONECROP FAMILY**			
Dudleya variegata Variegated dudleya	–/–	1B.2	NE, MSCP	Perennial herb; openings in chaparral, coastal sage scrub, grasslands, vernal pools; blooms May–June; elevation less than 2,000 feet.
EUPHORBIACEAE	**SPURGE FAMILY**			
Euphorbia misera Cliff spurge	–/–	2.2	–	Shrub; coastal sage scrub, maritime succulent scrub, coastal bluff scrub; blooms Dec.–Aug.; elevation less than 2,000 feet.
FAGACEAE	**OAK FAMILY**			
Quercus dumosa Nuttall's scrub oak	–/–	1B.1	–	Evergreen shrub; closed-cone coniferous forest, coastal chaparral, coastal sage scrub, sandy and clay loam soils; blooms Feb.–March; elevation less than 1,300 feet.
LAMIACEAE	**MINT FAMILY**			
Acanthomintha ilicifolia San Diego thornmint	CE/FT	1B.1	NE, MSCP	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.
Pogogyne nudiuscula Otay mesa mint	CE/FE	1B.1	NE, MSCP	Annual herb; vernal pools; blooms May–July; elevation 300–800 feet. Known from six occurrences in Otay Mesa.
POLEMONIACEAE	**PHLOX FAMILY**			
Navarretia fossalis Spreading navarretia	–/FT	1B.1	NE, MSCP	Annual herb; vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.
RANUNCULACEAE	**BUTTERCUP FAMILY**			
Myosurus minimus ssp. *apus* Little mousetail	–/–	3.1	–	Annual herb; vernal pools, perennial grasslands; blooms March–June; elevation 70–2,100 feet.
RHAMNACEAE	**BUCKTHORN FAMILY**			
Adolphia californica California adolphia	–/–	2.1	–	Deciduous shrub; Diegan coastal sage scrub and chaparral; clay soils; blooms Dec.–May; elevation 100–1,000 feet.
ROSACEAE	**ROSE FAMILY**			
Rosa minutifolia Small-leaved rose	CE/–	2.1	MSCP	Shrub; coastal sage scrub; blooms Jan.–June; elevation 500–550 feet. Known in California from only one occurrence on Otay Mesa, this occurrence now part of a translocation program on Otay Mesa.
SCROPHULARIACEAE	**FIGWORT FAMILY**			
Cordylanthus orcuttianus Orcutt's bird's-beak	–/–	2.1	MSCP	Annual herb; coastal sage scrub; blooms March–Sept.; elevation less than 1,200 feet.

TABLE 5.4-2
SENSITIVE PLANT SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Habitat/Blooming Period
ANGIOSPERMS: MONOCOTS				
POACEAE	**GRASS FAMILY**			
Orcuttia californica California Orcutt grass	CE/FE	1B.1	NE, MSCP	Annual herb; vernal pools; blooms April–August; elevation 50–2,200 feet.
THEMIDACEAE				
Bloomeria [=*Muilla*] *clevelandii* San Diego goldenstar	–/–	2.1	MSCP	Perennial herb (bulbiferous); chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, clay soils; blooms May; elevation 170–1,500 feet.
Brodiaea orcuttii Orcutt's brodiaea	–/–	1B.1	MSCP	Perennial herb (bulbiferous); closed cone coniferous forest, chaparral, meadows and seeps, valley and foothill grassland, vernal pools, mesic, clay soil; blooms May–July; elevation less than 5,300 feet.

FEDERAL CANDIDATES AND LISTED PLANTS
FE = Federally listed endangered
FT = Federally listed threatened

STATE LISTED PLANTS
CE = State listed endangered

CITY OF SAN DIEGO
NE = Narrow endemic
MSCP = Multiple Species Conservation Program covered species

CALIFORNIA NATIVE PLANT SOCIETY RARE PLANT RANKINGS
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.
.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
.3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)

b. Sensitive Animal Species

There are 28 sensitive wildlife species known from the CPU area based on information obtained from the literature review. Sources include, but are not limited to, the CNDDB (State of California 2012a) and the Draft Year 4 Annual Report for Dennery Canyon Vernal Pool Restoration, Coastal Sage Scrub, and Mule Fat Scrub Restoration and Preservation Plan (RECON 2004), along with other sources listed in Appendix D. Precise locations of sensitive wildlife species would be identified through on-site reconnaissance in conjunction with future projects. Table 5.4-3 lists the sensitive wildlife known to occur in the CPU area.

- Federally listed invertebrates: San Diego fairy shrimp, Riverside fairy shrimp, and the Quino checkerspot butterfly. These species all have designated critical habitat within the CPU area. Figure 5.4-3 shows the designated critical habitat for San Diego fairy shrimp and Riverside fairy shrimp. Figure 5.4-4 shows the designated critical habitat for Quino checkerspot butterfly.

- Amphibians: western spadefoot.

- Reptiles: Belding's orange-throated whiptail, Coronado skink, San Diego horned lizard, red diamond rattlesnake, and two-striped gartersnake.

- Birds: great egret, white-tailed kite, black-crowned night heron, northern harrier, Cooper's hawk, golden eagle, prairie falcon, western burrowing owl, loggerhead shrike, least Bell's vireo, California horned lark, coastal cactus wren, coastal California gnatcatcher, yellow-breasted chat, southern California rufous-crowned sparrow, and grasshopper sparrow.

- Mammals: northwestern San Diego pocket mouse, San Diego desert woodrat, and San Diego black-tailed jackrabbit.

5.4.1.4 Jurisdictional Waters

Agencies with jurisdictional authority over wetlands and other jurisdictional water resources include USFWS, USACE, CDFW, RWQCB, and the City of San Diego.

As shown on Table 5.4-1, there are approximately 55 acres of the CPU area that have been mapped as a wetland or water resource (e.g., riparian, vernal pool, basin with fairy shrimp, mule fat scrub, freshwater marsh, and alkali seep). Future subsequent projects implementing the CPU would be required to conduct an analysis of the wetland (e.g., protocol wetland delineation) and water resources, in order to identify any potential wetlands and other jurisdictional waters. If warranted, a formal wetland delineation would need to be conducted to identify the precise boundaries of these resources to determine

TABLE 5.4-3
SENSITIVE WILDLIFE SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA

Species	Status	Habitat/Comments
INVERTEBRATES		
ANOSTRACANS – Fairy Shrimp (Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp *Branchinecta sandiegonensis*	FE,[1], *	Vernal pools.
Riverside fairy shrimp *Streptocephalus woottoni*	FE,[1], *	Vernal pools, generally with a minimum depth of 30 centimeters.
NYMPHALIDAE – Brush-footed butterflies (Nomenclature from Mattoni 1990 and Opler and Wright 1999)		
Quino checkerspot butterfly *Euphydryas editha quino*	FE	Open, dry areas in foothills, mesas, lake margins. Larval host plant *Plantago erecta.* Adult emergence mid-January through April.
AMPHIBIANS (Nomenclature from Crother 2001 and Crother et al. 2003)		
PELOBATIDAE – Spadefoot Toads		
Western spadefoot *Spea hammondii*	CSC, *	Vernal pools, floodplains, and alkali flats within areas of open vegetation.
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)		
TEIIDAE – Whiptail Lizards		
Belding's orange-throated whiptail *Aspidoscelis* [=*Cnemidophorus*] *hyperythra beldingi*	CSC, MSCP, *	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
SCINCIDAE – Skinks		
Coronado skink *Eumeces skiltonianus interparietalis*	CSC	Grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.
IGUANIDAE – Iguanid lizards		
San Diego horned lizard *Phrynosoma coronatum* (San Diego/blainvillii population)	CSC, MSCP	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.
CROTALIDAE – Rattlesnakes		
Red diamond rattlesnake *Crotalus ruber*	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.
COLUBRIDAE – Colubrid Snakes		
Two-striped gartersnake *Thamnophis hammondii*	CSC, *	Permanent freshwater streams with rocky bottoms. Mesic areas.

TABLE 5.4-3
SENSITIVE WILDLIFE SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Species	Status	Habitat/Comments
BIRDS (Nomenclature from American Ornithologists' Union 1998 and 2005 and Unitt 2004)		
ARDEIDAE – Herons and Bitterns		
Great egret (rookery site) *Ardea alba egretta*	*	Lagoons, bays, estuaries. Ponds and lakes in the coastal lowland. Winter visitor, uncommon in summer.
Black-crowned night heron (rookery site) *Nycticorax nycticorax hoactli*	*	Lagoons, estuaries, bayshores, ponds, and lakes. Often roost in trees. Year-round visitor. Localized breeding.
ACCIPITRIDAE – Hawks, Kites, and Eagles		
White-tailed kite (nesting) *Elanus leucurus majusculus*	CFP	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.
Northern harrier (nesting) *Circus cyaneus hudsonius*	CSC, MSCP, *	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.
Cooper's hawk (nesting) *Accipiter cooperi*	MSCP, *	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Year-round resident.
Golden eagle (nesting and wintering) *Aquila chrysaetos*	CFP, BEPA, CSC, BCC, MSCP, *	Require vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and trees. Uncommon resident.
FALCONIDAE – Falcons and Caracaras		
Prairie falcon (nesting) *Falco mexicanus*	*	Grassland, agricultural fields, desert scrub. Uncommon migrant and winter visitor.
STRIGIDAE – Typical Owls		
Western burrowing owl (burrow sites) *Athene cunicularia hypugaea*	CSC, MSCP, BCC, *	Grassland, agricultural land, coastal dunes. Require rodent burrows. Resident of the coastal lowland and agricultural areas of Imperial County.
LANIIDAE – Shrikes		
Loggerhead shrike *Lanius ludovicianus*	CSC, BCC, *	Open foraging areas near scattered bushes and low trees; agriculture, desert wash/scrub, grassland. Fairly common resident.
VIREONIDAE - Vireos		
Least Bell's vireo (nesting) *Vireo bellii pusillus*	FE, SE, MSCP, BCC, *	Willow riparian woodlands. Migrant and summer resident.
ALAUDIDAE - Larks		
California horned lark *Eremophila alpestris actia*	*	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub. Common breeding resident, abundant migrant and winter visitor.

TABLE 5.4-3
SENSITIVE WILDLIFE SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Species	Status	Habitat/Comments
TROGLODYTIDAE – Wrens		
Coastal cactus wren *Campylorhynchus brunneicapillus*	CSC, MSCP, *	Maritime succulent scrub, coastal sage scrub and desert scrub with *Opuntia* thickets. Rare localized resident.
SYLVIIDAE – Gnatcatchers		
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC, MSCP, *	Coastal sage scrub, maritime succulent scrub. Resident.
PARULIDAE – Wood Warblers		
Yellow-breasted chat (nesting) *Icteria virens auricollis*	CSC, *	Breeding restricted to dense riparian woodland. Localized summer resident.
EMBERIZIDAE – Emberizids		
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	MSCP, *	Coastal sage scrub, chaparral, grassland; favors steep and rocky areas. Localized resident.
Grasshopper sparrow (nesting) *Ammodramus savannarum perpallidus*	*	Tall grass areas. Localized summer resident, rare in winter.
MAMMALS (Nomenclature from Baker et al. 2003 and Hall 1981)		
LEPORIDAE – Rabbits and Hares		
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	CSC, *	Open areas of scrub, grasslands, agricultural fields.
HETEROMYIDAE – Pocket Mice and Kangaroo Rats		
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	CSC, *	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.
CRICETIDAE – New World Mice and Rats		
San Diego desert woodrat *Neotoma lepida intermedia*	CSC, *	Coastal sage scrub and chaparral.

[1] In April 2010, the City relinquished federal coverage under the MSCP of the seven vernal pool species. The City currently does not have take authority for vernal pool species. A draft HCP is currently being prepared by the City in consultation with the Wildlife Agencies. Upon adoption of the HCP, the City would have "take" authority for the vernal pool species occurring within the HCP areas.

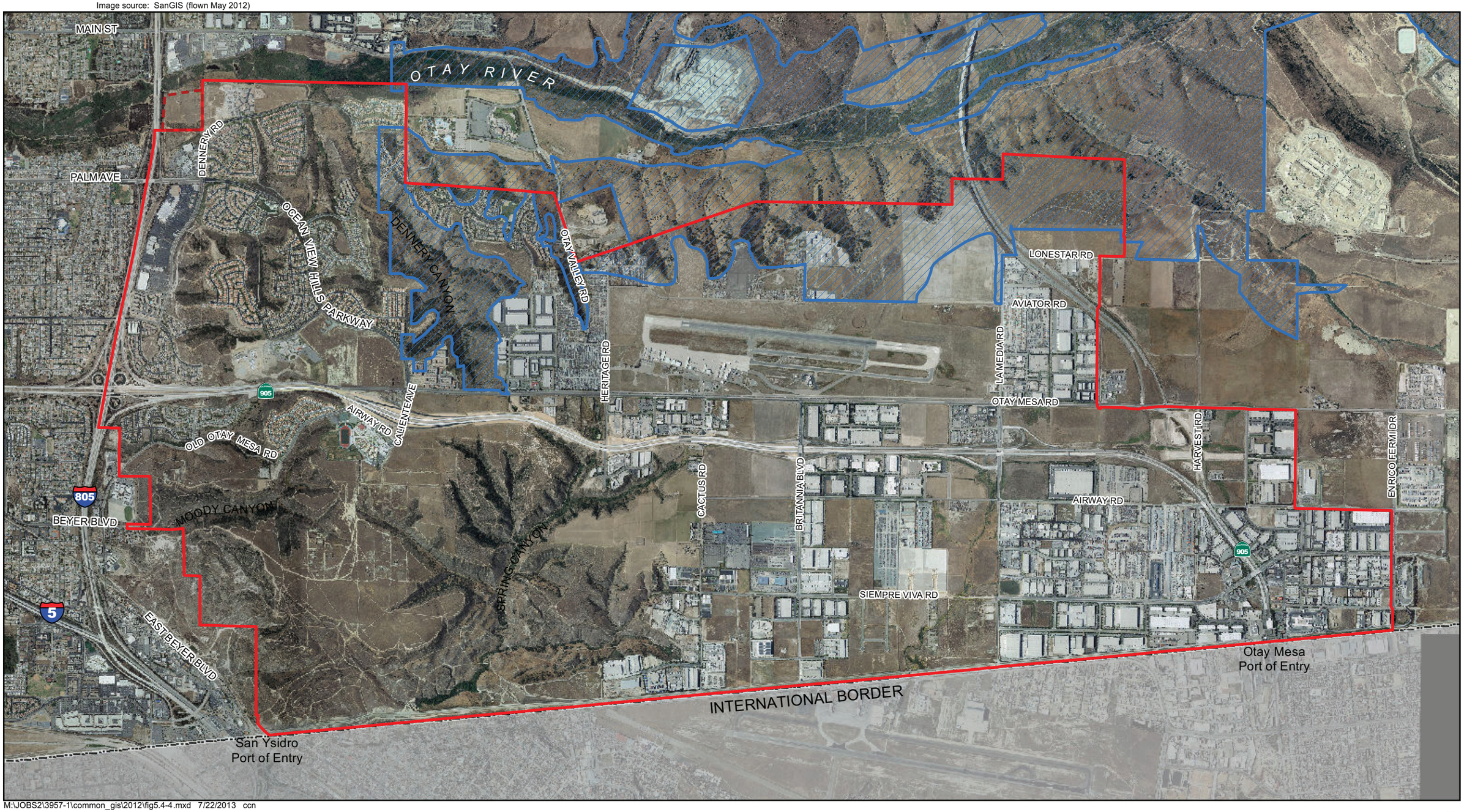
TABLE 5.4-3
SENSITIVE WILDLIFE SPECIES KNOWN TO OCCUR IN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

STATUS CODES

Listed/Proposed
FE = Listed as endangered by the federal government
FT = Listed as threatened by the federal government
SE = Listed as endangered by the State of California

Other
BCC = U.S. Fish and Wildlife Service Birds of Conservation Concern species
BEPA = Bald and Golden Eagle Protection Act
CFP = California fully protected species
CSC = California Department of Fish and Game species of special concern
MSCP = Multiple Species Conservation Program covered species
* = Taxa listed with an asterisk fall into one or more of the following categories:
- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-4.mxd 7/22/2013 ccn

0 Feet 2,500

Otay Mesa Community Plan Boundary
Not A Part
USFWS Critical Habitat for the Quino Checkerspot Butterfly

FIGURE 5.4-4
Location of Designated Critical Habitat
for the Quino Checkerspot Butterfly
within the Otay Mesa Community Plan Boundary

THIS PAGE IS INTENTIONALLY BLANK.

the extent of the existing waters/wetlands and to accurately determine if any impacts would occur from any proposed future project.

a. U.S. Army Corps of Engineers

As stated in the federal regulations for the Clean Water Act, wetlands are defined as:

> those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions (EPA, 40 CFR 230.3 and CE, 33 CFR 328.3).

Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to USACE, indicators for all three parameters must be present to qualify an area as a wetland.

In accordance with Section 404 of the Clean Water Act, USACE regulates the discharge of dredged or fill material into waters of the U.S. The term “waters of the United States” is defined as:

- All waters currently used, or used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation, or destruction of which could affect foreign commerce including any such waters: (1) which could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are, or could be taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industries in interstate commerce;
- All other impoundments of waters otherwise as defined as waters of the United States under the definition;
- Tributaries of waters identified above;
- The territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above [33 CFR Part 328.3(a)].

USACE also requires the delineation of non-wetland jurisdictional waters. These waters must have strong hydrology indicators such as the presence of seasonal flows and an ordinary high watermark. An ordinary high watermark is defined as:

> . . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR Part 328.3).

Areas delineated as non-wetland jurisdictional waters may lack wetland vegetation or hydric soil characteristics. Hydric soil indicators may be missing, because topographic position precludes ponding and subsequent development of hydric soils. Absence of wetland vegetation can result from frequent scouring due to rapid water flow. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the ordinary high watermark of the particular drainage or depression.

b. U.S. Fish and Wildlife Service

Under Sections 7 and 10 of the Endangered Species Act, USFWS has regulatory authority over federally listed endangered or threatened plant and animal species. Specifically, Section 7 requires agencies to ensure that their activities are not likely to jeopardize the continued existence of listed species or impact designated critical habitats through consultation with the Service. When impacts are anticipated, an Incidental Take Permit (ITP) must be authorized by USFWS under Section 10(a)1(A). An HCP must accompany the ITP under Section 10(a)(1)(B) to ensure that the authorized take is adequately mitigated and minimized. Therefore, impacts to any of the seven federally listed vernal pool species must be approved by USFWS, in addition to any other applicable Wildlife Agencies. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have “take” authority for the vernal pool species occurring within the HCP areas.

c. California Department of Fish and Wildlife

Under Sections 1600–1607 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., riparian scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider.

d. Regional Water Quality Control Board

RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes all waters of the state and all waters of the United States as mandated by both the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act. State waters are all waters that meet one of three criteria (hydrology, hydric soils, or wetland vegetation), and generally include but are not limited to, all waters under the jurisdiction of USACE and CDFW.

e. City of San Diego

According to the City of San Diego's Municipal Code (City of San Diego 2012a), wetlands are areas which are characterized by any of the following conditions: (1) all areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation; (2) areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities, natural catastrophic, or recurring events have removed the historic wetland vegetation; and (3) areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

5.4.1.5 Wildlife Movement and Corridors

Habitat linkages and wildlife corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Habitat linkages and wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations. Wildlife movement corridors are considered sensitive by the City and resource and conservation agencies.

Within the CPU area, the Dennery and Spring canyons, connected by the Otay Mesa Road culvert and SR-905 wildlife crossing, are the primary north-south wildlife movement corridor in western Otay Mesa. Moody Canyon is connected to the eastern side of Spring Canyon and provides east-west wildlife movement within the CPU area. Dennery Canyon connects to the Otay River Valley along the northern boundary of the CPU area. The Otay River Valley provides a major movement corridor for east-west wildlife movement north of the CPU area and provides connectivity to a larger expanse of open space.

5.4.2 Regulatory Framework

5.4.2.1 Multiple Species Conservation Program

The MSCP is a comprehensive, habitat conservation planning program for San Diego County. A goal of the MSCP is to preserve a network of habitat and open space, thereby protecting biodiversity. Local jurisdictions, including the City of San Diego, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms.

The City of San Diego's MSCP Subarea Plan was approved in March 1997. The MSCP Subarea Plan is a plan and process for the issuance of permits under the federal and state Endangered Species Act and the California Natural Communities Conservation Planning Act of 1991. The primary goal of the MSCP Subarea Plan is to conserve viable populations of sensitive species and to conserve regional biodiversity while allowing for reasonable economic growth.

In July 1997, the City of San Diego signed an IA with USFWS and CDFW. The IA serves as a binding contract between the City, USFWS, and CDFW that identifies the roles and responsibilities of the parties to implement the MSCP and subarea plan. The agreement became effective on July 17, 1997, and allows the City to issue Incidental Take Authorizations under the provisions of the MSCP. Applicable state and federal permits are still required for wetlands and listed species that are not covered by the MSCP.

a. Vernal Pool Lawsuit

In October of 2006, Judge Brewster issued a Decision and Injunction [Case No. 98-CV-2234-B(JMA)] in a lawsuit filed by the Southwest Center for Biological Diversity against the USFWS over the issuance of an ITP under Section 10 of the ESA to the City of San Diego based upon the MSCP. The lawsuit was limited to the seven vernal pool species including two crustacean species, San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus wootoni*), and five plant species: Otay mesa mint (*Pogogyne nuduliscula*), California Orcutt grass (*Orcuttii* californica), San Diego button celery (*Eryngium aristulatum*), San Diego mesa mint (*Pogogyne abramsii)*, and spreading navarretia (*Navarretia fossalis*).

The Court enjoined the City of San Diego's ITP for all pending and future development projects where "take" of any of the seven vernal pool species may occur, including:

- Pending applications for development of land containing vernal pool habitat.
- Projects where the City has granted permits, but development had not yet occurred.

- Future development where the permittee was engaged in the destruction of vernal pool habitat.

As a result of this ruling, numerous private and public development projects which contained vernal pool resources within their project site were enjoined. The Court determined that the City and USFWS were not providing adequate coverage under the MSCP for vernal pool species. The following are the main inadequacies identified in the ruling:

- Mitigation was not beneficial and could not be modified for the life of the permit.
- Creation of vernal pools was not always feasible due to site conditions and the difficulty with creating the proper conditions to support vernal pool flora and fauna.
- Measures to determine impact allowance was arbitrary and did not provide the same level of protection for "unnatural" vernal pools.
- Funding was speculative.

All parties entered into mediation in 2007 which continued through 2009, when it ended in an impasse. During the mediation, it was determined that a Vernal Pool HCP should be prepared for the comprehensive protection of vernal pool resources. The City was awarded an Endangered Species Act Section 6 grant in 2009 for the preparation of a vernal pool HCP. In April 2010, the City entered into a Planning Agreement with the USFWS for the preparation of the vernal pool HCP. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies.

In April 2010, the City also relinquished federal coverage of the seven vernal pool species. In 2011, Judge Brewster vacated the 2006 ruling since the relevant portions (i.e., vernal pool species) of the City's ITP were no longer in effect. This partial relinquishment and cancellation of the ITP only applies to federal coverage of the seven vernal pool species; the remainder of the City's MSCP ITP was not affected. The City is still responsible for the management of vernal pool resources, including the seven vernal pool species, owned and/or conserved through the City's permitting process. State coverage of the seven vernal pool species remains in effect.

As of the date of surrender, April 20, 2010, the City has relinquished federal coverage and the USFWS does not rely on the City's federal ITP to authorize an incidental take of the two vernal pool animal species and five vernal pool plant species. Upon completion of a HCP for vernal pools, the City would enter into an IA in order to obtain species coverage and a federal ITP for the seven vernal pool species. Incidental take authorization for projects that affect the seven vernal pool species could also be authorized through a FESA Section 10(a) or a Section 7 consultation with the USFWS, initiated as part of the 404 permit process by the USACE. A Biological Opinion is issued that serves as the ITP.

b. Multi-Habitat Planning Area

The Multi-Habitat Planning Area (MHPA) is the area within which the permanent MSCP preserve will be assembled and managed for its biological resources. Input from responsible agencies and other interested participants resulted in adoption of the City's MHPA in 1997. The City's MHPA areas are defined by "hard-line" limits, "with limited development permitted based on the development area allowance of the OR-1-2 zone [open space residential zone]" (City of San Diego 1997).

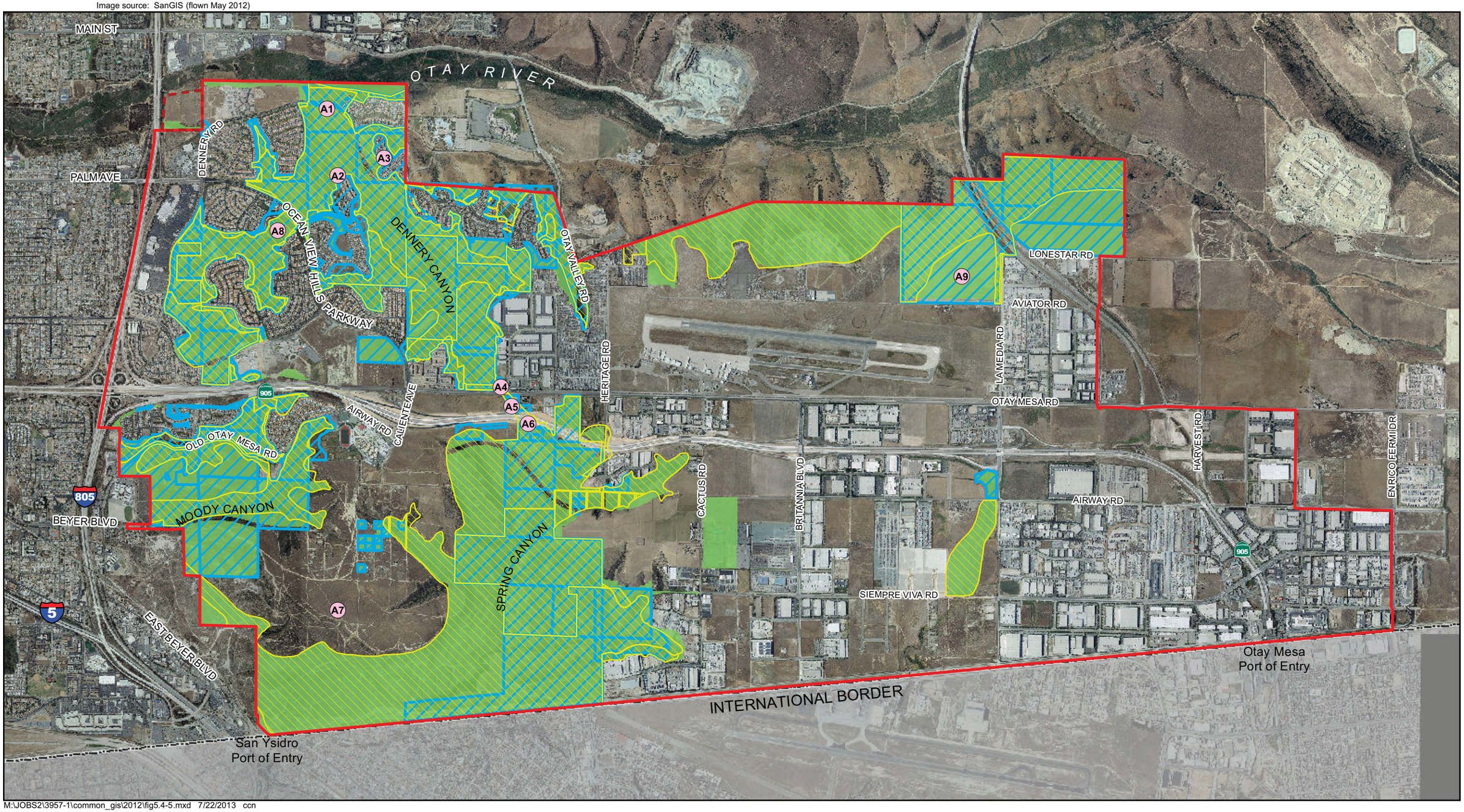
The MHPA consists of public and private lands, much of which has been conserved. Conserved lands shown on the SanGIS database (SanGIS 2013; Figure 5.4-5) include lands that have been set aside for mitigation or purchased for conservation. These lands may be owned by the City or other agencies, may have easements, may be dedicated, or may have some restrictions placed upon the property through the City's processes that protects the overall quality of the resources and prohibits development.

Private land within the MHPA is allowed only up to 25 percent development in the least sensitive area per the City's MSCP Subarea Plan. Should more than 25 percent development be desired, an MHPA boundary line adjustment may be proposed. The City's MSCP Subarea Plan states that adjustments to the MHPA boundary line are permitted without the need to amend the City's Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area proposed for addition to the MHPA must meet the six functional equivalency criteria set forth in Section 5.4.2 of the Final MSCP Plan (City of San Diego 1997). All MHPA boundary line adjustments require approval by the Wildlife Agencies and approval from a City discretionary hearing body.

A MHPA Boundary Line Correction within the south central CPU area was approved by the City and Wildlife Agencies on March 13, 2013. Due to a mapping registration error, the MHPA was mapped over 3.7 acres of existing development permitted as part of the International Business Center Project (EQD No. 86-0535) which was approved in the late 1980s. The MHPA boundary was shifted to the south in order to remove the approved developed area and to add the 10.8 acres in Wruck Canyon that had been conserved as part of the International Business Center Project. The correction resulted in a net gain of 7.1 acres within the MHPA.

For parcels located outside the MHPA, "there is no limit on the encroachment into sensitive biological resources, with the exception of wetlands, and listed non-covered species' habitat (which are regulated by state and federal agencies) and narrow endemic species." However, "impacts to sensitive biological resources must be assessed and mitigation, where necessary, must be provided in conformance" with the City's Biological Guidelines (City of San Diego 2012a).

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-5.mxd 7/22/2013 ccn

0 Feet 2,500

Otay Mesa Community Plan Boundary
Not A Part
MHPA Specific Guideline Areas

City of San Diego MHPA
SANGIS Conserved Lands Database

Otay Mesa Community Land Use Plan
OPEN SPACE

FIGURE 5.4-5

Location of MHPA, SanGIS Conserved Lands, and Proposed Otay Mesa Community Plan Open Space

THIS PAGE IS INTENTIONALLY BLANK.

The MSCP includes management priorities to be undertaken by the City as part of its MSCP implementation requirements. Those actions identified as Priority 1 are required to be implemented by the City as a condition of the MSCP Take Authorization to ensure that covered species are adequately protected. The actions identified as Priority 2 may be undertaken by the City as resources permit.

c. MHPA Land Use Adjacency Guidelines

To address the integrity of the MHPA and mitigate for indirect impacts to the MHPA, guidelines were developed to manage land uses adjacent to the MHPA. The MHPA adjacency guidelines are intended to be incorporated into the Mitigation Monitoring and Reporting Program (MMRP) and applicable permits during the development review phase of a proposed project. These guidelines address the issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/development.

MSCP Subarea Plan: Otay Mesa MHPA Management Directives

Otay Mesa is in the southern area of the MHPA which also includes the Otay River Valley, Tijuana Estuary, and Tijuana River Valley. The plan describes the Otay Mesa areas of the MHPA and its vision as a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability. The City's MHPA Guidelines for Otay Mesa as described in Section 1.2.1 of the City's Subarea Plan (1997) are as follows:

1. Maintain and/or provide trail access for Border Patrol use around the rim of canyons, where feasible. Motorized off-road-vehicle use in the MHPA should be prohibited except by Border Patrol, MHPA (Preserve) managers, or emergency vehicles.

2. In the area south of proposed State Route (SR-905), minimize road crossings of Spring Canyon. Where road crossings must occur, use bridges or culverts (see #3 below). Manufactured slopes adjacent to roadways should be revegetated with appropriate native vegetation.

3. Unless noted otherwise, culvert dimensions should be at least 30 feet wide by 15 feet high, and where feasible, have a maximum 2:1 length to width ratio. The floor of the culvert must be natural/soft bottom, and the ceiling constructed using skylights where possible to provide adequate visibility for wildlife.

4. Vernal pool areas should be preserved per adopted regulations. Where development is considered, the vernal pools should be assessed for transplantation of sensitive flora and fauna. Any wetland impacts will be mitigated for losses to meet the state and federal goal of "no net loss of wetland function

and value." Mitigation should occur in accordance with requirements to be determined through the 404 and 1602 permitting process for individual projects.

In addition to the general MHPA Guidelines identified above, the City's MSCP identifies the following specific guidelines for the Otay Mesa area (see Figure 5.4-5 for locations of A1–A9):

A1. Improve the wildlife/pedestrian corridor in Dennery Canyon by incorporating two culverts in Dennery Canyon Road. Revegetate the disturbed portions of Dennery Canyon with coastal sage scrub species.

A2. Modify street alignments to retain additional natural areas. Reduced street classifications and roadbed widths where possible to reflect reduced development.

A3. The Robinhood Ridge project has a legal right to develop under an existing approved Tentative Map. In the event that the approved map expires, future development proposals would be required to conform to the MHPA boundaries depicted by the Subarea Plan and associated land use regulations.

A4. Provide a culvert under Otay Mesa Road to facilitate wildlife crossing. Ideally, the culvert would provide both limited pedestrian and wildlife access from the Otay River Valley Regional Park through Dennery Canyon to areas to the south in Spring Canyon. However, if this dimension is not possible due to engineering constraints, the culvert must be large enough to allow mid-size mammal and predator undercrossing.

A5. Enhance/restore disturbed areas within the wildlife crossing. This will entail revegetation with coastal sage scrub species and if necessary, possible experimental restoration of graded vernal pools immediately north of Otay Mesa Road. The revegetation effort should not use medium to tall shrubs and trees, to address Border Patrol concerns. Provide fencing to direct animals into the undercrossing.

A6. The SR-905 design shall include a bridge-type structure over the wildlife corridor south of Otay Mesa Road. This crossing shall be enhanced with grading and revegetation.

A7. Prior to any development impacts in this area, mitigation must include collecting and reseeding vernal pool species into other preserved Otay Mesa pools.

A8. Final configuration of this area is subject to redesign of approved maps.

A9. The MHPA designation on the Baldwin property at the far northeastern end of the Otay Mesa area will need to be fenced at the time of development. Depending on

> the future use of adjacent areas outside the MHPA, the frequency and monitoring for disturbance, fence repairs, and other maintenance will be determined at the time of development. Due to the sensitivity of the vernal pools and other sensitive species in this area, public access should be carefully directed.

MSCP Subarea Plan: Specific Management Policies and Directives for Otay Mesa

Section 1.5.3 of the City of San Diego MSCP Subarea Plan (1997) describes the specific management and directives for the Otay Mesa area. The major issues that require consideration for management in the Otay Mesa area include the following, in order of priority, as excerpted from Section 1.5.3 of the City of San Diego MSCP Subarea Plan (1997):

- Intense land uses and activities adjacent to and in covered species habitat and linkages;
- Off-road-vehicle activity;
- Dumping, litter, and vandalism;
- Enhancement and restoration needs;
- Exotic (non-native), invasive plants and animals;
- Illegal immigration and Border Patrol activities; and
- Utility, facility and road repair, construction, and maintenance activities.

MSCP Subarea Plan: Overall Management Policies and Directives for Otay Mesa

As described in the plan:

> The Otay Mesa Community Plan contains lists and maps of vernal pools and sensitive species, as well as descriptions of native vegetation, wildlife and the ecological significance of the Otay Mesa area. The MHPA boundaries closely follow the open space designation in the adopted plan for the area south of Otay Mesa Road but have made modifications in the north area by adding substantial areas for preservation.

General Policies

General Policies for the MHPA contained in Section 1.5.3 of the MSCP Subarea Plan include:

Priority 1:

1. No unauthorized motorized vehicles except Border Patrol, MHPA managers, maintenance personnel, or emergency vehicles will be allowed on any trails or off-trail in the MHPA. The Border Patrol should restrict vehicles to the existing access roads as much as feasible, to avoid disturbance of habitat.

2. Remove all trash, hazardous materials, and vehicles from the MHPA prior to transfer from private to public ownership and/or management. If hazardous materials remain, these areas should be signed to indicate their locations, and made off-limits to people.

3. Inventory vernal pool areas within the Otay Mesa area for sensitive and target species where not previously or recently done, and assess for enhancement/restoration needs or opportunities, general status, and potential threats.

Priority 2:

1. Assess vernal pool areas proposed for development (e.g., approved development projects or proposed regional transportation facilities such as SR-905 and SR-125) for transplantation of sensitive plants and soils containing seedbanks of sensitive flora and fauna. Include in mitigation programs arrangements for proper timing of soil and plant removal, proper storage if necessary, and appropriate timing of enhancement/restoration efforts, including transplantation.

Specific Management Directives for Otay Mesa

Specific Management Directives for Otay Mesa contained in Section 1.5.3 of the MSCP Subarea Plan are identified as follow:

Northwest Otay Mesa

Priority 1:

1. Protect the area with concentrations of *Ferocactus*, *Dudleya*, and succulents on the ridge located in the northeast corner of the California Terraces from trampling and poaching of plants. Provide barriers to this area that accommodate wildlife movement.

2. Regular enforcement patrols may be necessary in Dennery Canyon and its tributaries to prevent vandalism, poaching, and off-road-vehicle activity.

3. The wildlife crossings under Otay Mesa Road and SR-905 are the only link from south to north Otay Mesa. These crossings must be kept free of debris and illegal

encampments. Provide screening of this area along both sides from residential and other adjacent development, and provide limited cover for wildlife within the crossing area that is compatible with Border Patrol activities. Restrict night lighting near this crossing.

Priority 2:

1. Assess the need for access roads at the bottom of Dennery Canyon and its tributaries. Utilize to the extent possible utility maintenance and Border Patrol access roads as trail system. Restore any roads determined not to be necessary to serve these functions, and any duplicate roads to the appropriate local native habitat(s).

2. Restore the Bentonite mine and bench area in Dennery Canyon to the appropriate local native habitat. Restoration may require topsoil importation which could be provided from the surrounding development areas at the time of grading, as these soils would also contain the appropriate local seed bank.

Northeast Otay Mesa

Priority 1:

1. Delineate the MHPA boundaries along areas of the mesa and slopes north of Brown Field with markers and signs to inform Brown Field employees, contractors, and other people of the boundaries of the MHPA to prevent disturbance of the area. This area should be made off-limits to illegal tilling of the mesas (except where required for brush management), dumping, storage of materials, and other disturbances. Fencing or other protection mechanisms will only be necessary if continued disturbance of these areas is evident.

2. Retain mesa areas which are currently non-native grasslands in order to allow regeneration or continue in their present state, thus providing needed raptor foraging area. If regeneration to coastal sage or other native habitats appears to be unbalancing the need for grassland areas in the future, assess these areas for management that would maintain a grassland (preferably native) community.

Priority 2:

1. Evaluate the mesa north of Brown Field for potential research opportunities in studying natural regeneration. If regeneration is not possible, pursue restoration of disturbed habitats in this area.

Southern Otay Mesa

Priority 1:

1. Continuous coordination with the U.S. Border Patrol will be necessary to ensure continued awareness of the MHPA and cooperation in maintenance. The presence of the Border Patrol in this area should help to make the MHPA safe for visitors. If possible, improve coordination with the U.S. Border Patrol to aid in the identification and prevention of vandalism, off-road vehicle use, dumping, and other disturbances to habitat.

2. Install barriers and signage along Spring Canyon where agriculture or development abuts the MHPA.

Priority 2:

1. Provide educational materials and training on the MSCP and on native wildlife to U.S. Border Patrol agents and other public agency personnel working in the Otay Mesa border area to encourage sensitive behavior towards wildlife and its habitat, and to discourage unnecessary off-road vehicle use in sensitive areas.

2. Ensure that the night lighting along the border intrudes as little as possible on lands in the interior of the MHPA.

3. Assess and prioritize the Spring Canyon area for restoration of disturbed areas. Include existing roads and those determined not to be needed for Border Patrol activities in the restoration assessment. Burned areas should not need restoration, but off-road use and other disturbed areas should either be restored or other steps taken to encourage regeneration. This could offer potential research opportunities.

5.4.2.2 City of San Diego Environmentally Sensitive Lands Regulations

The purpose of the ESL Regulations (LDC §143.0101 through §143.0160) is to protect, preserve and, where damaged, restore environmentally sensitive lands and the viability of the species supported by those lands. The ESL Regulations apply to all proposed development when environmentally sensitive lands, including sensitive biological resources, steep hillsides, floodplains, or coastal bluffs, are present. The regulations are designed to ensure that development occurs in a manner that protects natural resources and the natural and topographic character of the area, and retains biodiversity and interconnected habitats.

Within the CPU area, ESL resources include sensitive species and habitats, vernal pools and other wetlands, floodplains or areas of flooding, and steep hillsides. Many of the ESL resources are within the existing designated MHPA where development

encroachment is restricted to 25 percent in the least sensitive portion of the site. Compliance of the CPU with the ESL Regulations is detailed in Section 5.1.5 within this EIR.

Future development implemented in accordance with the CPU will be required to comply with the applicable sections of the ESL regulations related to biological resources, wetlands and the MSCP/MHPA.

5.4.2.3 City of San Diego General Plan Policies

The General Plan presents goals and policies for biological resources in the Conservation Element. Relevant excerpts from this element are included in Table 5.4-4 below.

TABLE 5.4-4
GENERAL PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES

Policy	Description
CE-B.1	Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities. a. Utilize Environmental Growth Funds and pursue additional funding for the acquisition and management of MHPA and other important community open space lands. b. Support the preservation of rural lands and open spaces throughout the region. c. Protect urban canyons and other important community open spaces including those that have been designated in community plans for the many benefits they offer locally, and regionally as part of a collective citywide open space system (see also Recreation Element, Sections C and F; Urban Design Element, Section A). d. Minimize or avoid impacts to canyons and other environmentally sensitive land by relocating sewer infrastructure out of these areas where possible, minimizing construction of new sewer access roads into these areas, and redirecting of sewage discharge away from canyons and other environmentally sensitive lands. e. Encourage the removal of invasive plant species and the planting of native plants near open space preserves. f. Pursue formal dedication of existing and future open space areas throughout the City, especially in core biological resource areas of the City's adopted MSCP Subarea Plan. g. Require sensitive design, construction, relocation, and maintenance of trails to optimize public access and resource conservation.

TABLE 5.4-4
GENERAL PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES
(continued)

Policy	Description
CE-B.2	Apply the appropriate zoning and Environmentally Sensitive Lands (ESL) regulations to limit development of floodplains and sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands. a. Manage watersheds and regulate floodplains to reduce disruption of natural systems, including the flow of sand to the beaches. Where possible and practical, restore water filtration, flood and erosion control, biodiversity and sand replenishment benefits. b. Limit grading and alterations of steep hillsides, cliffs and shoreline to prevent increased erosion and landform impacts.
CE-C.4	Manage wetland areas as described in Section H, Wetlands, for natural flood control and preservation of landforms.
CE-E.4	Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.
CE-E.7	Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.
CE-G.1	Preserve natural habitats pursuant to the MSCP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability. a. Educate the public about the impacts invasive plant species have on open space. b. Remove, avoid, or discourage the planting of invasive plant species. c. Pursue funding for removal of established populations of invasive species within open space.
CE-G.2	Prioritize, fund, acquire, and manage open spaces that preserve important ecological resources and provide habitat connectivity.
CE-G.3	Implement the conservation goals/policies of the City's MSCP Subarea Plan, such as providing connectivity between habitats and limiting recreational access and use to appropriate areas.
CE-G.4	Protect important ecological resources when applying floodplain regulations and development guidelines.
CE-G.5	Promote aquatic biodiversity and habitat recovery by reducing hydrological alterations, such as grading a stream channel.
CE-H.1	Use a watershed planning approach to preserve and enhance wetlands.
CE-H.2	Facilitate public-private partnerships that improve private, federal, state and local coordination through removal of jurisdictional barriers that limit effective wetland management.
CE-H.3	Seek state and federal legislation and funding that support efforts to research, classify, and map wetlands including vernal pools and their functions, and improve restoration and mitigation procedures.
CE-H.4	Support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values.
CE-H.5	Support research and demonstration projects that use created wetlands to help cleanse urban and storm water runoff, where not detrimental to natural upland and wetland habitats.

TABLE 5.4-4
GENERAL PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES
(continued)

Policy	Description
CE-H.6	Support educational and technical assistance programs, for both planning and development professionals, and the general public, on wetlands protection in the land use planning and development process.
CE-H.7	Encourage site planning that maximizes the potential biological, historic, hydrological and land use benefits of wetlands.
CE-H.8	Implement a "no net loss" approach to wetlands conservation in accordance with all city, state, and federal regulations.

SOURCE: City of San Diego General Plan Conservation Element 2008.

5.4.3 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds, impacts related to biological resources would be significant if the CPU would:

1. Result in a reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals;

2. Result in interference with the nesting/foraging/movement of any resident or migratory fish or wildlife species;

3. Result in an impact to a sensitive habitat, including, but not limited to streamside vegetation, oak woodland, vernal pools, wetlands, coastal sage scrub, or chaparral;

4. Affect the long-term conservation of biological resources as described in the MSCP, or conflict with the provisions of the MSCP Subarea Plan's Land Use Adjacency Guidelines or other approved local, regional, or state conservation plans;

5. Result in the introduction of invasive species of plants into the area;

6. Result in an impact on City, state, or federally regulated wetlands (including, but not limited to, salt marsh, vernal pool, lagoon, riparian habitat, etc.) through direct removal, filing, hydrological interruption, or other means; or

7. Result in temporary construction noise from the CPU or permanent noise generators (including roads) that adversely impacts sensitive species (e.g., coastal California gnatcatcher) within the MHPA;

5.4.3.1 Criteria for Evaluating Biological Resources

Potential impacts to biological resources are evaluated through review of the project's consistency with the City's LDC ESL Regulations and Biology Guidelines as well as the MSCP Subarea Plan. Before a determination of the significance of an impact can be made, the presence and nature of the biological resources would be established. The criteria for evaluating a project's impact on biological resources resulting from CPU implementation would depend on whether:

- The site has been identified as part of the MHPA by the Subarea Plan.
- The site supports or could support Tier I, II, IIIA & B vegetation communities (such as grassland, chaparral, coastal sage scrub).
- The site contains, or comes within 100 feet of, a natural or man-made drainage (determine whether it is vegetated with wetland vegetation). The site lies within the 100-year floodplain established by FEMA and the Flood Plain Fringe/Flood Way zones.
- The site does not support a vegetation community covered under the MSCP; however, important wildlife species may use the site for a corridor, etc.

5.4.3.2 Biological Impacts

Once it has been established that biological resources are present on a project site, further analysis of a project's direct and/or indirect impact to biological resources would be required and a determination of significance made with respect to the resource being impacted.

Direct effects include, but are not limited to, the following impacts:

a. Direct Impacts

- Any encroachment in the MHPA is considered a significant impact to the preservation goals of the MSCP. Any encroachment into the MHPA (in excess of the allowable encroachment by a project) would require a MHPA boundary adjustment which would include a habitat equivalency assessment and concurrence by the Wildlife Agencies to ensure that lands added to the MHPA would be least equivalent to what would be removed.
- Lands containing Tier I, II, IIIA, and IIIB habitats and all wetlands are considered sensitive and declining habitats. Impacts to these resources may be considered significant.

- Impacts to individual sensitive species, outside of any impacts to habitat, may also be considered significant based upon the rarity and extent of impacts. Impacts to state or federally listed species and all narrow endemics should be considered significant.

- Certain species covered by the MSCP and other species not covered by the MSCP may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.

b. Indirect Impacts

Indirect effects include, but are not limited to, the following impacts:

- Introduction of urban meso-predators into a biological system
- Introduction of urban runoff into a biological system
- Introduction of invasive exotic plant species into a biological system
- Noise and lighting impacts
- Alteration of a dynamic portion of a system, such as stream flow characteristics or fire cycles
- Loss of a wetland buffer that includes no environmentally sensitive lands

5.4.4 Issue 1: Sensitive Plants and Animals

Would the CPU result in a reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals?

5.4.4.1 Impacts

The CPU presents goals and policies for biological resources in the Land Use, Urban Design, Recreation, and Conservation Elements. Relevant excerpts from this element are included in Table 5.4-5 below.

TABLE 5.4-5
CPU PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES

Policy	Description
LU 2.1-2	Achieve comprehensive neighborhood and community village development through Specific Plans that: a. Respect the natural topography and sensitive habitat areas with growth patterns that balance development with preservation of natural resources. b. Provide a land use map that illustrates the detailed land use designations, including any lands set aside for resource conservation consistent with any future Vernal Pool Habitat Conservation Plan. The specific plan land use map will refine the Otay Mesa Community Plan Land Use Map as part of the specific plan approval process. c. Illustrate a separate system of pedestrian and bicycle facilities and pathways linking the activity centers with the residential areas, public facilities, and open space systems.
LU 2.6-1	Maintain the existing open space, and collaborate with the Wildlife Agencies, environmental groups, and the public to ensure adequate conservation for sensitive biological resources.
LU 2.6-2	Create a close relationship between the natural environment of the Otay River Valley, Spring Canyon, and the Dennery Canyon systems and developed areas through the provision of multi-use trails and educational elements.
UD 4.1-2	Incorporate interpretive centers to provide educational information for sensitive resources within the Dennery Canyon system and the Otay River Valley as new development and redevelopment occurs.
UD 4.3-1	Employ sensitive design techniques when developing adjacent to Otay Mesa's natural canyon and open space systems.
RE 7.2-1	Balance goals to preserve MHPA and open space areas with opportunities for providing recreation. a. Maintain Spring Canyon and portions of the Otay Valley Regional Park in their natural state. Future uses should be compatible with the open space concept, and may include hiking, bicycling, and sightseeing. b. Create a close relationship between the natural environment of Spring Canyon and developed areas through an extensive parks, recreation, and open space system by connecting parks to open space trails, bike routes, and sidewalks.
RE 7.2-2	Minimize activities that require alterations to the natural open space.
RE 7.2-3	Require the sensitive placement of structures such as benches, picnic tables in open space areas.
RE 7.2-5	Support efforts to designate trails and create a comprehensive trails system within Spring Canyon and the Otay Valley Regional Park's Dennery Canyon open space areas.
CE 8.1.1	Implement the ESL Regulation related to biological resources and steep hillsides for all new development.
CE 8.1.2	Preserve a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability.
CE 8.1.4	Implement the MSCP Management Policies and Directives for Otay Mesa through the project review process.

TABLE 5.4-5
CPU PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES
(continued)

Policy	Description
CE 8.1.5	Implement City regulations and Biology Guidelines for preservation, acquisition, restoration, management, and monitoring of biological resources.
CE 8.1.6	Implement Area Specific Management Directives and Conditions of Coverage as stated in Table 3-5 of the MSCP Subarea Plan for species protected in Otay Mesa and identified in Table 8-1 of the CPU.
CE 8.1.7	Require preservation, restoration, management, and monitoring within identified vernal pool preservation areas in accordance with City, state, and federal policies and regulations. The boundaries of vernal pool preserve areas should be of sufficient size and shape to protect the vernal pool basins, watersheds, functional buffers, and areas necessary to maintain vernal pool ecosystem function and species viability. a. Design, as feasible, the preserve areas to provide connectivity between vernal pools, surrounding open space, and nearby vernal pool complexes. b. Conduct management and monitoring of preserved and restored vernal pool sites in accordance with the citywide regulations and Biology Guidelines.
CE 8.1.8	Amend the Otay Mesa Community Plan as needed for consistency with an adopted HCP.
CE 8.1.9	Foster local stewardship and develop positive neighborhood awareness of the open space preserve areas with environmental education programs through local schools, homeowners associations, community groups, and other public forums that address the local ecosystem and habitat preservation. Incorporate hands-on learning via neighborhood hikes or other initiatives that present information in a manner that will increase interest in the natural world.
CE 8.1.10	Require development to obtain all required state and federal permits.
CE 8.1.11	Encourage the development of a comprehensive approach to habitat identification, management, and establishment of preservation nodes in order to address long term survival of the burrowing owl on Otay Mesa.

Even with the implementation of the aforementioned policies, impacts to unique, rare, endangered, sensitive, or fully protected species of plants or animals would occur with implementation of the CPU as described below. Due to the fact that portions of the biological resource assessment are based on secondary source information rather than site-specific field surveys, the impacts would be refined for individual projects. Instead, the program-level analysis identifies areas of potential impacts associated with implementation of the overall CPU. Site-specific surveys would be conducted for future project-level review to verify the presence of sensitive plant species occurring on individual properties and determine the extent of any potential impacts.

a. Impacts to Sensitive Plants

Implementation of the CPU has the potential to impact 17 sensitive plant species known to occur within the CPU area. Precise locations of sensitive plant species would be identified through on-site reconnaissance in conjunction with future development.

Ten of the plant species are federally and/or state listed and MSCP-covered species. These include:

Otay tarplant is state listed as endangered and federally listed as threatened (State of California 2012b). It is considered a narrow endemic species under the MCSP and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California or elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). Habitat for this species is coastal sage scrub, valley and foothill grasslands in clay soils.

San Diego ambrosia (*Ambrosia pumila*). San Diego ambrosia is federally listed as endangered (State of California 2012b). It is considered a narrow endemic species under the MSCP and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). Habitat for this species is disturbed areas in chaparral, coastal scrub, grassland, or vernal pool communities or along creek beds, seasonally dry drainages, and floodplains along the edge of willow woodland, in riverwash or sandy alluvial soils.

Variegated dudleya is considered a narrow endemic species under the MSCP and has a CNPS Rare Plant Ranking of 1B.2 (Rare, threatened, or endangered in California or elsewhere; fairly endangered in California) (City of San Diego 1997; CNPS 2012). It can be found in openings in chaparral, coastal sage scrub, grasslands, or vernal pool habitats.

San Diego button-celery is federally and state listed as endangered (State of California 2012b). It is considered a narrow endemic species under the MSCP and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California or elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). It is found in vernal pools and wet areas within coastal sage scrub and grasslands.

Spreading navarretia is federally listed as threatened, is considered a narrow endemic species under the MSCP, and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (State of California 2012b; City of San Diego 1997; CNPS 2012). Its habitat is vernal pools, marshes, and swamps. A portion of the Otay Mesa area has been designated as critical habitat by the USFWS for spreading navarretia (see Figure 5.4-3).

California Orcutt grass is a state and federally endangered species (State of California 2012b). It is considered a narrow endemic species under the MSCP and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). This species grows in vernal pools.

Otay mesa mint is state and federally listed as an endangered species and has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (State of California 2012b; CNPS 2012). It is considered a narrow endemic under the MSCP (City of San Diego 1997). This plant grows in vernal pools.

Small-leaved rose is state listed as endangered, covered under the MSCP, and has a CNPS Rare Plant Ranking of 2.1 (Rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (State of California 2012b; City of San Diego 1997; CNPS 2012). Its habitat is coastal sage scrub. It is known in California from only one occurrence on Otay Mesa. Because the only location of this species is part of a translocation program within the Ocean View Hills project (approved and built), impacts would not be anticipated.

San Diego goldenstar is a covered species under the MSCP and has a CNPS Rare Plant Ranking of 2.1 (Rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). It occurs in chaparral, coastal sage scrub, grasslands, and vernal pool habitats.

San Diego barrel cactus is a covered species under the MSCP and has a CNPS Rare Plant Ranking of 2.1 (Rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (City of San Diego 1997; CNPS 2012). It is found in chaparral, coastal sage scrub, grassland, and vernal pool habitats.

Additional plant species are not covered in the MSCP, but considered rare and occurring on the CNPS List. These include:

South coast saltscale has a CNPS Rare Plant Ranking of 1B.2 (Rare, threatened, or endangered in California, but more common elsewhere; fairly endangered in California). It is found in coastal sage scrub habitat (CNPS 2012).

Nuttall's scrub oak has a CNPS Rare Plant Ranking of 1B.1 (Rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (CNPS 2012). It is found in chaparral and coastal sage scrub habitats.

San Diego bur-sage has a CNPS Rare Plant Ranking of 2.1 (Rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California). It is found in coastal sage scrub (CNPS 2012).

Golden-spined cereus has a CNPS Rare Plant Ranking of 2.2 (Rare, threatened, or endangered in California, but more common elsewhere; fairly endangered in California). It is found in chaparral and coastal sage scrub (CNPS 2012).

Cliff spurge has a CNPS Rare Plant Ranking of 2.2 (Rare, threatened, or endangered in California, but more common elsewhere; fairly endangered in California). It is found in coastal sage scrub and maritime succulent scrub (CNPS 2012).

Little mousetail has a CNPS Rare Plant Ranking of 3.1 (Needs review; seriously endangered in California). It is found in vernal pools and grasslands (CNPS 2012).

San Diego County viguiera has a CNPS Rare Plant Ranking of 4.2 (Uncommon in California; fairly endangered in California). It is found in chaparral and coastal sage scrub (CNPS 2012).

b. Impacts to Sensitive Wildlife

Implementation of the CPU has the potential to impact sensitive wildlife species known to occur within the CPU area. Precise locations of sensitive wildlife species and suitable habitat would be identified through on-site reconnaissance in conjunction with future development. Potentially affected species and suitable habitat are described below.

Federally Listed Endangered Species

The federally endangered Quino checkerspot butterfly, San Diego fairy shrimp, Riverside fairy shrimp, and least Bell's vireo could be impacted with future development implemented in accordance with the CPU. Impacts to the San Diego fairy shrimp, Riverside fairy shrimp, least Bell's vireo, and Quino checkerspot butterfly must be approved by USFWS under Section 7 or 10 of the federal Endangered Species Act. Impacts to least Bell's vireo must comply with the provisions of the MSCP.

The San Diego fairy shrimp and Riverside fairy shrimp are federally listed endangered species. The City relinquished federal coverage of these species in the MSCP, but has retained state coverage through the MSCP. They are both associated with vernal pool habitat and have designated critical habitat in Otay Mesa (see Figure 5.4-4).

The Quino checkerspot butterfly is also a federally listed endangered species and a non-covered species in the MSCP. It occurs in open dry areas of the mesa and has designated critical habitat in the northeastern corner of the CPU area (see Figure 5.4-4).

The least Bell's vireo is a federally and state listed endangered species and an MSCP covered species that could nest in the CPU. It is a migratory species and summer resident in riparian woodlands dominated by willows.

Federally Listed Threatened Species

The coastal California gnatcatcher, a federally listed threatened species, CDFW listed species of special concern, and MSCP covered species, could be impacted with future development implemented in accordance with the CPU. Coastal sage scrub and maritime succulent scrub habitat occupied by the coastal California gnatcatcher occurs in the CPU area. Direct impacts to occupied habitat that occurs in an MHPA area could be impacted under the proposed CPU. Indirect impacts (temporary construction noise) may occur to this species if construction occurs during the breeding season.

State Listed Endangered Species

The least Bell's vireo is a federally and state listed endangered species and an MSCP covered species that could nest in the CPU area. As such, impacts to least Bell's vireo must comply with the federal and state regulations regarding take of a listed species.

CDFW Species of Special Concern

The western burrowing owl is a CDFW species of special concern, USFWS bird of conservation concern, and MSCP covered species that is known to occur within the CPU area. The western burrowing owl occupies open areas, including native and non-native grassland, sparsely vegetated shrubland, agricultural land, and disturbed habitat. They typically nest in ground squirrel or other small mammal burrows, but may dig their own nests in soft soil or use culverts or drainage pipes. The burrowing owl population located within the Otay Mesa area is the largest remaining population of this species in San Diego County (Unitt 2004).

Impacts to burrowing owls would include not only direct impacts to individuals, nests, and suitable nesting habitat, but also indirect impacts from "eradication of host burrowers; changes in vegetation management (i.e., grazing); use of pesticides and rodenticides; destruction, conversion or degradation of nesting, foraging, over-wintering or other habitats; destruction of natural burrows and burrow surrogates; and disturbance which may result in the harassment of owls at occupied burrows" (CDFW 2012). Implementation of the CPU may result in impacts to 1,230.4 acres of non-native grassland, 110.7 acres of agricultural land, and 374.2 acres of disturbed land. Impacts to non-native grassland would affect the preferred habitat of the burrowing owl and would likely reduce population numbers. Although the species prefers grasslands, it is also known to use agricultural lands and disturbed lands when suitable grassland habitat is not available near an occupied area. Therefore, impacts to agricultural and disturbed lands need to be evaluated for their potential to support the burrow owl.

Future development in areas designated for commercial and industrial uses on properties that have not been previously graded, or have been graded but have not otherwise developed, would be subject to review in accordance with the supplemental

regulations for CPIOZ Type A (ministerial). This includes a requirement for submittal of a Focused Burrowing Owl Survey prepared by a qualified biologist in accordance with the City's Biology Guidelines that determines there are no burrowing owls present on the project site. Development proposals that do not comply with the CPIOZ Type A supplemental regulations would be subject to discretionary review in accordance with CPIOZ Type B. Both processes are further described in Section 3.0, Project Description. In addition, as part of the environmental analysis for future discretionary projects implemented in accordance with the CPU (CPIOZ Type B), burrowing owl surveys would be required to be conducted in suitable habitat to determine if this species is present and to located active burrows and burrow complexes. If burrowing owls are present, mitigation measures must be implemented, including avoidance of impacts inside the MHPA. Outside the MHPA impacts must be avoided to the maximum extent practicable by the relocation of owls out of impact areas by trained professionals and the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management, and enhancement of burrowing owl nesting and foraging requirements to compensate for lost habitat. Management plans and directives must be prepared for these burrowing owl conservation lands in accordance with CDFW's staff report for burrowing owls dated March 2012 and would be subject to approval by the Wildlife Agencies.

Raptors, including the Cooper's hawk and northern harrier, are known to forage in the CPU area and may nest in suitable habitats within the CPU area. Cooper's hawk is a CDFW species of concern, USFWS bird of conservation concern, and MSCP covered year-round resident in San Diego. The Cooper's hawk habitat includes mature forest, open woodlands, woodland edges, parks, and residential areas. The northern harrier is a CDFW species of concern and MSCP covered migrant and winter resident in San Diego. The northern harrier occupies coastal lowlands, marshes, grassland, and agricultural fields. The CPU would remove up to approximately 1,459.53 acres of foraging habitat for birds of prey (including approximately 1,230.4 acres of non-native grasslands and 229.13 acres of scrubland). In compliance with the Migratory Bird Treaty Act (MBTA) and Section 3503 of the California Fish and Wildlife Code, no active nests of migratory bird species may be impacted during project construction.

Coastal cactus wren is CDFW species of special concern, USFWS bird of conservation concern and MSCP covered species. It occupies maritime succulent scrub and coastal sage scrub. Any impacts to these habitat types could potentially impact the coastal cactus wren.

Additional CDFW species of special concern occurring in the CPU area include San Diego horned lizard and Belding's orange-throated whiptail. Both are MSCP-covered and occupy chaparral and coastal sage scrub habitats.

Others include western spadefoot, Coronado skink, red diamond rattlesnake, loggerhead shrike (USFWS bird of conservation concern), yellow-breasted chat, northwestern San

Diego pocket mouse, San Diego woodrat, and San Diego black-tailed jackrabbit. These species are not covered by the MSCP.

CDFW Fully Protected Species

Other raptors, such as the golden eagle (CDFW fully protected species and species of special concern; USFWS bird of conservation concern; MSCP covered) and white-tailed kite (CDFW fully protected species), may nest or winter in the CPU area. The golden eagle requires vast foraging areas in grassland, broken chaparral, or sage scrub. It nests in cliffs and trees.

Other MSCP Covered Species

Southern California rufous-crowned sparrow is a CDFW watch list and MSCP covered species that occupies coastal sage scrub, chaparral and grassland.

Other Non-covered Sensitive Species

These include species listed or considered sensitive but are not covered in the City's MSCP: great egret; black-crowned night heron; prairie falcon (CDFW watch list; federal bird of conservation concern); California horned lark (CDFW watch list) in addition to the species listed above.

Indirect Impacts

The MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. When land is developed adjacent to the MHPA, there is a potential for secondary impacts that may degrade the habitat value or disrupt animals within the preserve area. These secondary effects of development may include habitat insularization, drainage/water quality impacts, lighting, noise, roadkill, exotic plant species, nuisance animal species, and human intrusion. These impacts would be short-term, resulting from construction activities, or long-term. Short-term construction impacts would result in disruption of nesting and breeding and would thus affect the population of sensitive species. To address this concern, the MSCP includes a set of Land Use Adjacency Guidelines that would be evaluated and implemented at the project-level. Indirect impacts are discussed in more detail in Sections 5.4.7, 5.4.8, and 5.4.10.

TABLE 5.4-6
POTENTIAL IMPACTS TO VEGETATION COMMUNITIES AND LAND COVER TYPES WITHIN THE CPU

Vegetation Communities/ Land Cover Type	CPU Impact Area		Total
	Inside MHPA*	Outside MHPA	
Non-native grassland	10.9	1,219.5	1,230.4
Diegan coastal sage scrub	1.4	160.6	162
Disturbed land	0	374.2	374.2
Maritime succulent scrub	0.78	64.7	65.48
Agriculture	0.1	110.6	110.7
Riparian	0.35	0	0.35
Non-native vegetation	0	0.1	0.1
Vernal pool	0.05	2.9	2.95
Basin with fairy shrimp	0**	0.7	0.7
Mule fat scrub	1.3	0	1.3
Southern mixed chaparral	0	0	0
Alkali Seep	0	0	0
Freshwater marsh	0	0	0
Eucalyptus woodland	0	0	0
TOTAL	**14.88**	**1,933.3**	**1,948.18**

*Lands within the MHPA that have not been 100 percent conserved have the potential for a 25 percent loss in the least sensitive area due to allowable encroachment under the MSCP.
**Impact acreage less than 0.01.

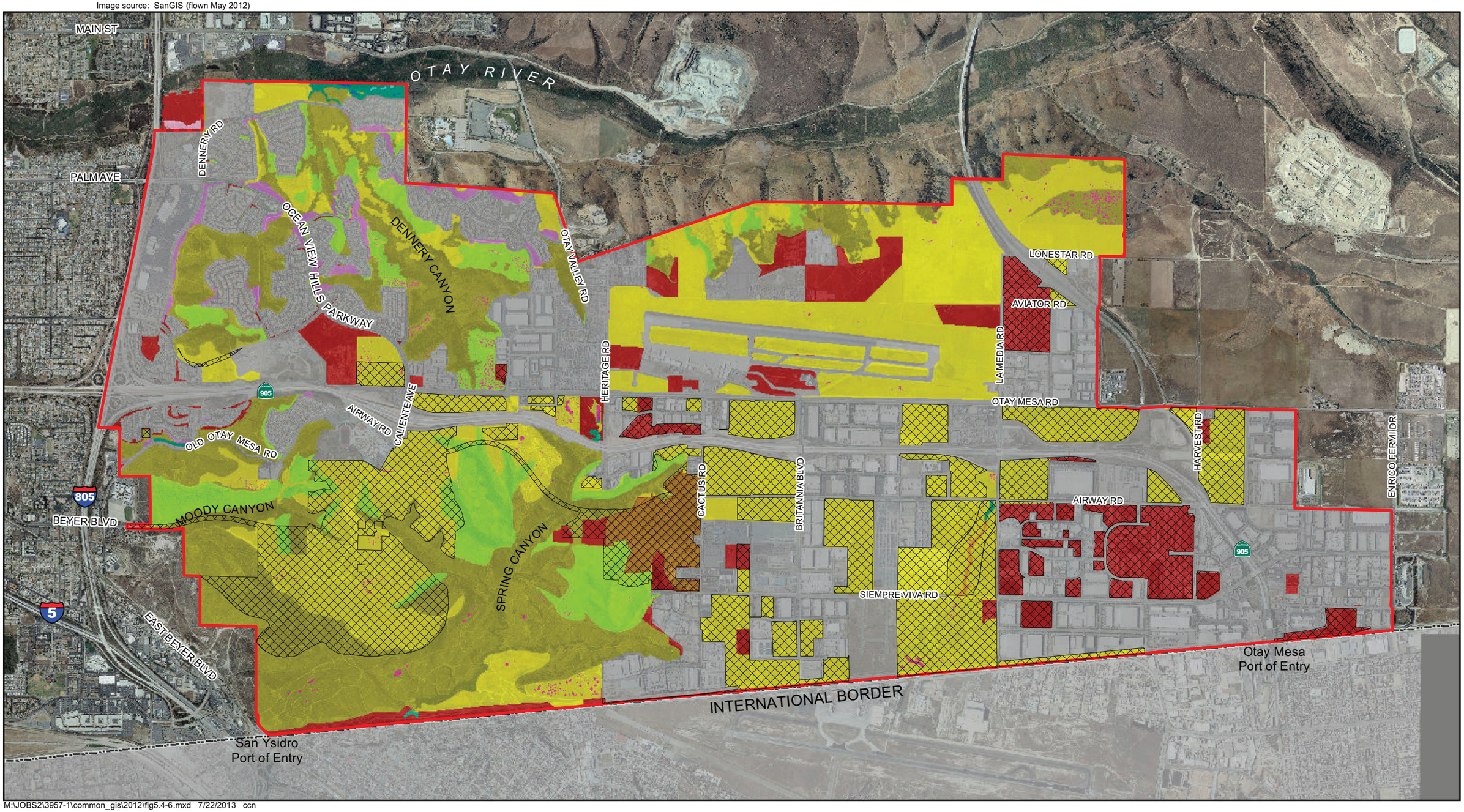
The CPU incorporates several policies related to the protection of sensitive habitats, as described in Section 5.4.4. Even with the implementation of the aforementioned policies, implementation of the CPU has the potential to result in the loss of sensitive vegetation communities (Figure 5.4-6) in the CPU area.

Figure 5.4-7 shows the impacts to sensitive vegetation communities, as classified by the MSCP. As previously detailed in Section 5.4.1.2, upland communities within the MSCP are divided into four tiers of sensitivity based on rarity and ecological importance (City of San Diego 2012a). Tier I is the most sensitive and Tier IV is the least sensitivity. Potential impacts to sensitive vegetation communities would include the loss of basins with fairy shrimp, Diegan coastal sage scrub, maritime succulent scrub, non-native grassland, and riparian. Impacts to wetlands, including vernal pools, are discussed in Section 5.4.9. Impacts to sensitive vegetation communities would be significant.

5.4.4.2 Significance of Impacts

Implementation of the CPU has the potential to impact sensitive plants and animals directly through the loss of habitat or indirectly by placing development adjacent to the MHPA. Potential impacts to federal or state listed species, MSCP covered species, or species with a CNPS Rare Plant Ranking would be significant. Plant species potentially impacted are listed in Table 5.4-2.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-6.mxd 7/22/2013 ccn

Project Boundary
Not A Part
Proposed Impacts

Vegetation Communities and Land Cover Types

- Alkali Seep
- Coastal and Valley Freshwater Marsh
- Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Mule Fat Scrub
- Non-native Grassland
- Non-native Vegetation
- Riparian
- Southern Mixed Chaparral
- Vernal Pool
- Agriculture
- Disturbed Land
- Urban/Developed

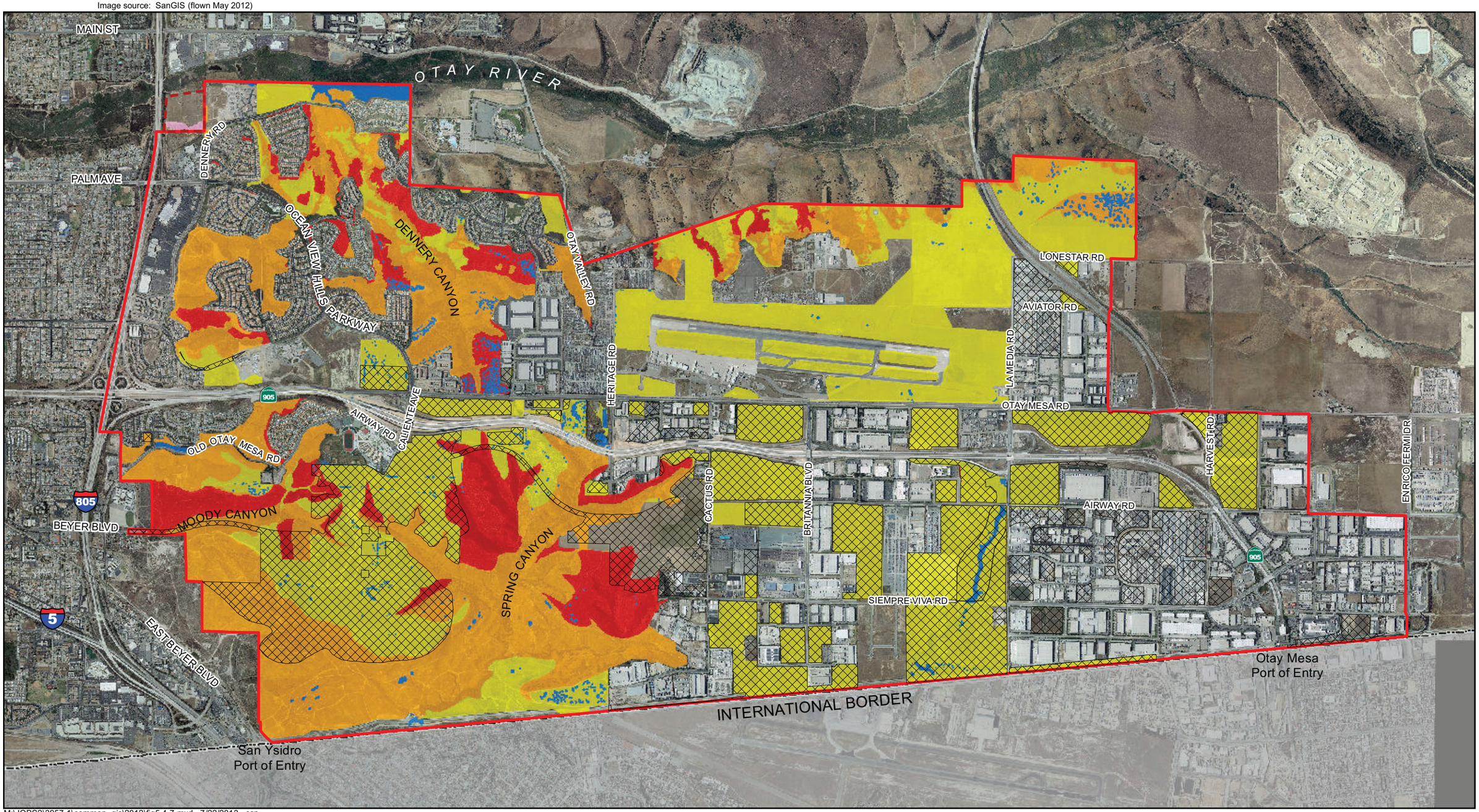
0 Feet 2,500

FIGURE 5.4-6

Impacts to Vegetation Communities and Land Cover Types

THIS PAGE IS INTENTIONALLY BLANK.

Image source: SanGIS (flown May 2012)



M:\JOBS2\3957-1\common_gis\2012\fig5.4-7.mxd 7/22/2013 ccn

Otay Mesa Community Plan Boundary
Not A Part
Proposed Impacts

Vegetation Classification

- Tier I Uplands
- Tier II Uplands
- Tier IIIA Uplands
- Tier IIIB Uplands
- Wetlands

0 Feet 2,500

FIGURE 5.4-7

Impacts to Sensitive Vegetation Communities

THIS PAGE IS INTENTIONALLY BLANK.

These species include: coastal California gnatcatcher, Quino checkerspot butterfly, San Diego fairy shrimp, Riverside fairy shrimp, San Diego horned lizard, Belding's orange-throated whiptail, western burrowing owl, coastal cactus wren, northern harrier, Cooper's hawk, golden eagle, least Bell's vireo, and southern California rufous-crowned sparrow. Impacts to those wildlife species listed in Table 5.4-3 not listed above would be adverse, though not significant, due to their lower sensitivity ratings and the fact that suitable habitat would be preserved in the MHPA to compensate for loss of sensitive habitat (see Issue 3). It should be noted however, that for future projects that are consistent with the OMCP, base zone regulations and the supplemental regulations for CPIOZ Type A and can demonstrate that no biological resources are present; the project can be processed ministerially and would not be subject to further environmental review under CEQA.

5.4.4.3 Mitigation Framework

Mitigation is required for impacts that are considered significant under the City of San Diego's Biology Guidelines (2012) and the City of San Diego's CEQA Significance Determination Thresholds (2011d). All impacts to sensitive biological resources shall be avoided to the maximum extent feasible and minimized when avoidance is not possible. For future projects that are consistent with the OMCP, base zone regulations and the supplemental regulations for CPIOZ Type A and can demonstrate that no biological resources are present, the project can be processed ministerially and would not be subject to further environmental review under CEQA. Future development which does not comply with CPIOZ Type A shall be subject to review in accordance with CPIOZ B and shall implement the Biological Resources Mitigation Framework detailed below. Where impacts are not avoidable or cannot be minimized, mitigation shall be required to reduce significant impacts to below a level of significance. Mitigation measures typically employed include resource avoidance, restoration, or creation of habitat, dedication, or acquisition of habitat, or payment into the City of San Diego's Habitat Acquisition Fund or other City-approved mitigation bank. Mitigation measures shall be determined and implemented at the project-level. Adherence to the recommendations below is anticipated to minimize impacts to sensitive biological resources.

BIO-1: To reduce potentially significant impacts that would cause a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the CPU area, all subsequent projects implemented in accordance with the CPU shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012). The locations of any sensitive plant species, including listed, rare, and narrow endemic species, as well as the potential for occurrence of any listed or rare wildlife species shall be recorded and presented in a biological resources report. Based on available habitat within CPU area, focused presence/absence surveys shall be conducted in

accordance with the biology guidelines and applicable resource agency survey protocols to determine the potential for impacts resulting from the future projects on these species. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the FESA, MBTA, Bald and Golden Eagle Protection Act, California Endangered Species Act (CESA), MSCP Subarea Plan, and ESL Regulations.

In addition to the requirements detailed above, specific measures shall be implemented when the biological survey results in the identification of Burrowing Owls on the project site. Future projects shall be required to conduct a habitat assessment to determine whether or not protocol surveys are needed. Should burrowing owl habitat or sign be encountered on or within 150 meters of the project site, breeding season surveys shall be conducted. If occupancy is determined, site-specific avoidance and mitigation measures shall be developed in accordance with the protocol established in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). Measures to avoid and minimize impacts to burrowing owl shall be included in a Conceptual Burrowing Owl Mitigation Plan which includes take avoidance (pre-construction) surveys, site surveillance, and the use of buffers, screens, or other measures to minimize construction-related impacts .

Mitigation for Impacts to Sensitive Upland Habitats

Future projects implemented in accordance with the CPU resulting in impacts to sensitive upland Tier I, II, IIIA, or IIIB habitats shall implement avoidance and minimization measures consistent with the City Biology Guidelines and MSCP Subarea Plan and provide suitable mitigation in accordance with the City's Biology Guidelines (Table 5.4-7) MSCP Subarea Plan. Future project-level grading and site plans shall incorporate project design features to minimize direct impacts on sensitive vegetation communities including but not limited to riparian habitats, wetlands, oak woodlands, coastal sage scrub, and chaparral consistent with federal, state, and City guidelines. Any required mitigation for impacts on sensitive vegetation communities shall be outlined in a conceptual mitigation plan following the outline provided in the City Biology Guidelines.

Mitigation for impacts to sensitive vegetation communities shall be implemented at the time future development projects are proposed. Project-level analysis shall determine whether the impacts are within or outside of the MHPA. Any MHPA boundary adjustments shall be processed by the individual project applicants through the City and Wildlife Agencies during the early project planning stage.

Mitigation for impacts to sensitive upland habitats shall occur in accordance with the MSCP mitigation ratios as specified within the City's Biology Guidelines (City of San Diego 2012a). These mitigation ratios are based on Tier level of the vegetation community, the location of the impact and the location of the mitigation site(s). For example, impacts to lands inside of the MHPA and mitigated outside the MHPA would have the highest mitigation ratio whereas impacts to lands outside the MHPA and mitigated inside the MHPA would have the lowest mitigation ratio.

If mobility element roads (i.e., Beyer Boulevard, Airway Road, and Del Sol Boulevard) impact existing conserved lands, an additional 1:1 ratio shall be added to the City required mitigation ratio in order to replace the lands that were previously preserved as open space. Mitigation lands purchased to compensate for impacts to areas within conserved lands shall be located in the Otay Mesa area if feasible.

TABLE 5.4-7
MITIGATION RATIOS FOR IMPACTS TO UPLAND VEGETATION COMMUNITIES AND LAND COVER TYPES

Tier	Habitat Type	Mitigation Ratios			
TIER 1 (rare uplands)	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	Location of Preservation			
				Inside	Outside
		Location of Impact	Inside*	2:1	3:1
			Outside	1:1	2:1
TIER II (uncommon uplands)	Coastal Sage Scrub Coastal Sage Scrub/ Chaparral	Location of Preservation			
				Inside	Outside
		Location of Impact	Inside*	1:1	2:1
			Outside	1:1	1.5:1
TIER III A (common uplands)	Mixed Chaparral Chamise Chaparral	Location of Preservation			
				Inside	Outside
		Location of Impact	Inside*	2:1	3:1
			Outside	1:1	2:1
TIER III B (common uplands)	Non-Native Grasslands	Location of Preservation			
				Inside	Outside
		Location of Impact	Inside*	1:1	1.5:1
			Outside	0.5:1	1:1

Notes:
For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I (in Tier) or (2) occur outside of the MHPA within the affected habitat type (in-kind).
For impacts on Tier II, IIIA, and IIIB habitats, the mitigation could (1) occur within the MHPA portion of Tiers I – III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind).
Project-specific mitigation will be subject to applicable mitigation ratios at the time of project submittal.

Mitigation for Impacts to Wetlands

Please refer to Mitigation Framework BIO-4.

Mitigation for Short-term Impacts to Sensitive Species from Project Construction

Specific measures necessary for reducing potential construction-related noise impacts to the coastal California gnatcatcher, least Bell's vireo burrowing owl, and the cactus wren are further detailed in LU-2 and BIO-2.

5.4.4.4 Significance after Mitigation

Future commercial, business park and industrial development applications for properties that are subject to the CPIOZ and that are consistent with the CPU zone regulations, and the supplemental CPIOZ regulations, would be processed ministerially (CPIOZ

Type A) in accordance with the procedures of the CPIOZ which requires preparation and submittal of a focused biological resources survey to determine presence or absence of sensitive plants and animal species. Future development proposal that do not comply with the supplemental regulations for CPIOZ Type A and the regulations of the underlying zone would apply for a CPIOZ Type B permit and would be required to obtain discretionary approval through a Site Development Permit. Implementation of the CPIOZ would ensure consistency of all future development with CPU goals and policies. Although implementation of the CPU has the potential to result in significant direct and indirect impacts to sensitive plant and animal species which can be mitigated at the project-level, these projects would be required to implement the Mitigation Framework identified in the MMRP, which requires site-specific environmental review, analysis of potential impacts to biological resources, and recommendations for mitigation to reduce significant project-level biological resource impacts to below a level of significance.

5.4.5 Issue 2: Migratory Wildlife

Would the CPU result in interference with the nesting/foraging/movement of any resident or migratory fish or wildlife species?

5.4.5.1 Impacts

The CPU incorporates policies (detailed in Table 5.4-5) related to the protection of wildlife species, sensitive habitats, and wildlife movement corridors, as described in Section 5.4.4. Even with the implementation of the aforementioned policies, impacts to wildlife nesting, foraging, and movement have potential to occur with implementation of the CPU as described below. The program-level analysis identifies areas of potential impacts associated with implementation of the CPU. Site-specific analysis would be conducted for subsequent projects implemented in accordance with the CPU to determine the extent of impacts to wildlife nesting, foraging, and movement.

a. Nesting and Foraging Impacts

Undeveloped portions of the CPU area support a variety of habitats on both the mesa tops and canyon areas. Mesa top lands generally support non-native grasslands, vernal pools, agricultural and disturbed habitat that are considered valuable foraging area for raptors and provide food and cover for other wildlife. Wetlands provide a water source, as well as food, cover, and perching habitat. Canyon areas, which generally support the more dense habitats such as coastal sage scrub and maritime succulent scrub, also provide food, cover, and perching habitat. These canyon areas also provide corridors for wildlife movement. A variety of birds, including sensitive species, raptors, and other resident and migratory birds, are likely to nest in this vegetation in the CPU area. Impacts from noise and construction activity resulting from future development under the CPU would occur if construction occurs during the raptor or migratory bird nesting season.

Implementation of the CPU would remove foraging habitat for birds of prey. Loss of upland habitat resulting from future development implemented in accordance with the CPU would contribute to a cumulative loss of raptor foraging areas.

b. Wildlife Movement Impacts

Wildlife movement within the CPU area focuses on the canyon areas, which are part of the adopted MHPA open space system. This MHPA network in the Otay Mesa area, along with the City of Chula Vista's and County's MSCP Subarea Preserve Areas, which are contiguous to the northeast portion of the CPU, is planned to link to the regionally significant Otay River Valley. Dennery and Spring canyons, and the smaller canyons along the northern boundary that drain into Otay River Valley are key local components of the wildlife movement corridors within the MHPA network. The CPU maintains the planned habitat linkage corridors of the MHPA in terms of location and acreage; however, CPU Mobility Element roads, utility lines, and/or temporary construction activities within the MHPA have the potential to impact wildlife movement directly as a result of habitat loss or fragmentation.

Several of the CPU Mobility Element roads are planned within, adjacent to or would cross MHPA. Some of these lands have been conserved as shown on Figure 5.4-8. These roads are currently in various stages of development and include the following:

- The Beyer Boulevard alignment would run along Moody Canyon within the MHPA.
- Airway Road would cross the northern tip of the Spring Canyon within the MHPA and connect with Heritage/Otay Valley Road.
- Otay Mesa Road, Ocean View Hills Parkway, and Del Sol Boulevard would cross Moody Canyon within the MHPA.
- Dennery Road would run through the Dennery Canyon within the MHPA.
- The northern extension of Heritage/Otay Valley Road would extend into the Otay River Valley and run along the edge of a portion of the MHPA within the CPU area. Heritage Road would cross Spring Canyon within the MHPA.
- Portions of La Media Road and Siempre Viva Road would run close to MHPA areas but would not cross them.

According to the MSCP Subarea Plan, roads in the MHPA are limited to Community Plan Circulation/Mobility Element roads, collector streets, and necessary maintenance or emergency access roads. The MSCP identifies several policies aimed at protecting the integrity of the wildlife corridors. Such policies address minimizing disruption caused by construction and staging areas; avoiding canyon bottoms and allowing wildlife

movement through use of bridges or culverts where roads cross the MHPA; narrowing of roads to minimize habitat fragmentation and disruption of wildlife movement; and placing roads in lower quality habitat or disturbed areas to the extent possible.

5.4.5.2 Significance of Impacts

Future development, including construction or extension of CPU Mobility Element roadways, utility lines, and/or temporary construction activities within the MHPA, has the potential to interfere with nesting, reduce foraging habitat, and obstruct wildlife movement as a result of noise, construction activities, habitat loss and/or fragmentation. Any direct or indirect impacts to migratory wildlife nesting, foraging, and movement would be significant.

5.4.5.3 Mitigation Framework

BIO-2: Mitigation for future projects to reduce potentially significant impacts that would interfere with the nesting, foraging, or movement of wildlife species within the CPU area, shall be identified in site-specific biological resources surveys prepared in accordance with City of San Diego Biology Guidelines as further detailed in BIO-1 during the discretionary review process. The Biology Report shall include results of protocol surveys and recommendations for additional measures to be implemented during construction-related activities; shall identify the limits of any identified local-scale wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities (e.g., non-native grassland to riparian or agricultural to developed land) to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor.

Measures that shall be incorporated into project-level construction documents to minimize direct impacts on wildlife movement, nesting or foraging activities shall be addressed in the Biology report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species specific mitigation plans (such as a Burrowing Owl Mitigation Plan) in order to comply with the FESA, MBTA, Bald and Golden Eagle Protection Act, State Fish and Wildlife Code, and/or the ESL Regulations.

5.4.5.4 Significance after Mitigation

Compliance with CPU policies and established development standards and regulations including ESL, MSCP, the City' Biology Guidelines, and the Mitigation Framework would serve to reduce impacts at the program-level to below a level of significance.

5.4.6 Issue 3: Sensitive Habitat

Would the CPU result in an impact to a sensitive habitat, including, but not limited to streamside vegetation, oak woodland, vernal pools, wetlands, coastal sage scrub, or chaparral?

5.4.6.1 Impacts

The CPU would impact a maximum of 1,948acres of the 9,349-acre study area (see Figure 5.4-6). Table 5.4-6, above, summarizes the acreage of vegetation communities and land cover types that would be impacted by build-out of the CPU. The impact footprint does not include land characterized as developed (i.e., developed or entitled with approved development permits, but not currently built/graded) or ornamental/landscape vegetation, as only impacts to sensitive vegetation communities or habitat as defined by the City's Biology Guidelines and ESL Regulations would be considered significant.

The CPU incorporates several policies related to the protection of sensitive habitats, as described in Section 5.4.4. Even with the implementation of the aforementioned policies, implementation of the CPU has the potential to result in the loss of sensitive vegetation communities (see Figure 5.4-6) in the CPU area.

Figure 5.4-7 shows the impacts to sensitive vegetation communities, as classified by the MSCP. Figure 5.4-8 shows the potential impacts to the MHPA and lands identified within the SanGIS Conserved Lands database.

5.4.6.2 Significance of Impacts

Impacts to Tier I, II, IIIA, and IIIB habitats would be significant. These sensitive habitats include: maritime succulent scrub, native grassland, Diegan coastal sage scrub, southern mixed chaparral, non-native grassland, riparian scrub, vernal pools, and basins with fairy shrimp. Impacts to wetlands are discussed below in Section 5.4.9.

5.4.6.3 Mitigation Framework

Potential impacts to biological resources are evaluated through review of the project's consistency with the City's Land Development Code ESL Regulations and Biology Guidelines as well as the MSCP Subarea Plan.

BIO-3: Please refer to Mitigation Framework BIO-1.

5.4.6.4 Significance after Mitigation

Compliance with CPU policies and established development standards and regulations, along with implementation of the Mitigation Framework detailed in BIO-1 would serve to

reduce impacts to sensitive vegetation communities at the program level to below a level of significance.

5.4.7 Issue 4: MSCP

Would the CPU affect the long-term conservation of biological resources as described in the MSCP? Would the CPU meet the objectives of the MSCP Subarea Plan's Land Use Adjacency Guidelines or conflict with the provisions of the MSCP Subarea Plan, or other approved local, regional, or state conservation plans?

5.4.7.1 Impacts

The relationship of the CPU and the MSCP and designated MHPA is discussed in detail in Section 5.1, Land Use. An overview of the land use issues are provided below.

a. MHPA

Boundary Adjustments

As described in Section 5.1.6, Land Use, future development implemented in accordance with the CPU may propose an adjustment(s) to the MHPA boundary, thus removing MHPA preserve in some locations and adding MHPA preserve in other locations. Provisions in the MSCP Subarea Plan require that any modification to the MHPA boundaries result in equal or better biological values; therefore, boundary adjustments associated with future development would not result in significant direct or indirect impacts associated with environmental or habitat conservation plans. Potential impacts to MHPA preserve configuration as a result of MHPA boundary adjustments would be less than significant, because the adjustment must meet the required MHPA boundary line equivalency analysis and obtain approval from the Wildlife Agencies. Potential impacts to sensitive vegetation and species would be analyzed and mitigated consistent with mitigation measure BIO-1.

MHPA Land Use Adjacency Guidelines

As described in Section 5.1.6, Land Use, the MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. When land is developed adjacent to the MHPA, there is a potential for secondary impacts that may degrade the habitat value or disrupt animals within the preserve area. To address these concerns, the MSCP includes a set of MHPA Land Use Adjacency Guidelines that are to be evaluated and implemented at the project-level.

Indirect effects can occur wherever development and human activity is adjacent to natural areas. These effects include increased runoff, trampling and removal of plant cover due to hiking, biking and other human activities, increased presence of toxins, increased nighttime light levels, and redirection or blockage of wildlife movement,

increased levels of non-native and invasive plants. These indirect effects could reduce the quality of the MHPA. The MHPA Land Use Adjacency Guidelines require certain measures to be incorporated in the design of projects adjacent to the MHPA to reduce indirect impacts, however, not to below a level of significance at the program-level.

Future development proposals would be required to address indirect impacts and incorporate the MHPA Land Use Adjacency Guidelines. However, as implementation of the CPU would introduce land uses adjacent to MHPA, this is a potentially significant impact at the program-level.

b. Specific Management Directives for Otay Mesa

As described in Section 5.1.6, the MSCP envisions "a network of open and relatively undisturbed canyons containing a full ensemble of native species which provide functional wildlife habitat and movement capability." Specific Management Directives are aimed at carrying out this vision and include measures to protect sensitive species, limit access into the canyons, provide wildlife crossing under Otay Mesa Road/SR-905, and address regeneration and restoration. The CPU would be generally consistent with the vision of the Otay Mesa MHPA; therefore, there are no significant, direct impacts anticipated to the MHPA.

5.4.7.2 Significance of Impacts

a. MHPA

Boundary Adjustments

Potential impacts to sensitive vegetation communities and species as a result of MHPA boundary adjustments would be less than significant, because the adjustment must meet the required equivalency criteria for approval.

MHPA Land Use Adjacency Guidelines

MHPA adjacency impacts would be addressed at the project-level. Projects adjacent to the MHPA would incorporate features into the project and/or permit conditions that would demonstrate compliance with the MHPA Land Use Adjacency Guidelines. To ensure avoidance or reduction of the potential MHPA impacts resulting from new development adjacent to the MHPA, future projects would be required to comply with Mitigation Framework measure LU-2. Therefore, potential impacts at the program level would be reduced to below a level of significance.

b. Specific Management Directives for Otay Mesa

The CPU would be consistent with the vision for the Otay Mesa MHPA as the open space network would remain intact and the CPU incorporates policies for adhering to the

Management Directives. No significant impacts relating to MSCP consistency would occur.

5.4.7.3 Mitigation Framework

a. MHPA

Boundary Adjustments

Impacts would not be considered significant; therefore, no mitigation is required.

MHPA Land Use Adjacency Guidelines

MHPA adjacency impacts would be addressed at the project-level. Please refer to Mitigation Framework **LU-2 in** Section 5.1.6 (Land Use).

b. Specific Management Directives for Otay Mesa

No impacts would result; therefore, no mitigation would be required.

5.4.7.4 Significance after Mitigation

a. MHPA

Boundary Adjustments

Impacts would be below a level of significance.

MHPA Land Use Adjacency Guidelines

Implementation of Mitigation Framework **LU-2** would reduce impacts at the program level to below a level of significance.

b. Specific Management Directives for Otay Mesa

Impacts would be less than significant.

5.4.8 Issue 5: Invasive Plants

Would the CPU result in the introduction of invasive species of plants into the area?

5.4.8.1 Impacts

The CPU would adhere to MSCP Subarea Plan and City regulations, both of which contain policies for control of invasive plant species. Invasive species are aggressive non-native plant species that threaten natural habitats by outcompeting native species

and reducing biodiversity. These plants thrive in areas disturbed by activities such as grading, construction, off-road vehicle use, and fire.

In areas outside of the MHPA, invasive plant species would also have the potential to be introduced due to future development activities. However, all subsequent projects developed in accordance with the CPU would be subject to CEQA review and compliance with the City's Biology Guidelines, MSCP Subarea Plan, and the Landscape Standards in the Land Development Manual, including the prohibitions on the use of invasive plant species, such as paper mulberry (*Broussonetia papyrifera*) or pampas grass (*Cortaderia selloana*).

Due to the large extent of future grading and development within the CPU, the CPU has the potential to introduce invasive species into the MHPA. If uncontrolled, invasive species could significantly impact the integrity of the MHPA in the CPU area. The MHPA Land Use Adjacency Guidelines require that no invasive, non-native plant species be introduced into areas adjacent to the MHPA. Future development implemented in accordance with the CPU would require subsequent review and compliance with all City regulations and guidelines, including the MHPA Land Use Adjacency Guidelines.

As discussed in Section 5.1, Land Use and above in Section 5.4.7.4, impacts associated with the MHPA Land Use Adjacency Guidelines would be considered significant, as implementation of the CPU would introduce new development adjacent to MHPA.

5.4.8.2 Significance of Impacts

Potential impacts associated with the introduction of invasive species into the MHPA would be evaluated at the project-level. All future projects would be required to implement the MHPA Land Use Adjacency Guidelines and Mitigation Framework measure LU-2 in Section 5.1.6, Land Use, which requires that the project's landscape plan would not contain any exotic plant/invasive species and would include an appropriate mix of native species which would be used adjacent to the MHPA.

5.4.8.3 Mitigation Framework

The introduction of invasive species into the MHPA would be addressed at the project-level; Please refer to Mitigation Framework LU-2 in Section 5.1.6, Land Use.

5.4.8.4 Significance after Mitigation

At the program-level, implementation of the MHPA Land Use Adjacency Guidelines and Mitigation Framework measure **LU-2** would reduce impacts to below a level of significance.

5.4.9 Issue 6: Wetland Impacts

Would the CPU result in an impact on City, state, or federally regulated wetlands (including, but not limited to, salt marsh, vernal pool, lagoon, riparian habitat, etc.) through direct removal, filling, hydrological interruption, or other means?

5.4.9.1 Impacts

The CPU incorporates several policies related to the protection of sensitive habitats such as wetlands and vernal pools:

Policy CE 8.1-7 requires the preservation, restoration, management, and monitoring within identified vernal pool preservation areas in accordance with City, state, and federal policies and regulations. The boundaries of vernal pool preserve areas should be of sufficient size and shape to protect the vernal pool basins, watersheds, functional buffers, and areas necessary to maintain vernal pool ecosystem function and species viability. Policy CE 8.1.10 requires development to obtain all required state and federal permits.

Wetlands habitats in the CPU area consist primarily of vernal pools, basins with fairy shrimp, freshwater marsh, mule fat scrub, alkali seep, and riparian habitat. Figure 5.4-6 shows the potential impacts to these categories of wetlands with implementation of the CPU.

The City's Biology Guidelines, ESL Regulations, and MSCP Subarea Plan requires that impacts to wetlands, which include vernal pools and vernal pool species, shall be avoided and that a sufficient buffer shall be maintained around all wetlands to protect wetland functions and values. In the case of vernal pools, avoidance includes maintaining a sufficient amount of the pool's watershed area necessary for its continued viability and providing a buffer around the vernal pool to protect wetland functions and values. Buffer distances are typically 100 feet, but in some cases, a lesser buffer may be approved provided it can be demonstrated that the functions and values of the wetland are not compromised.

Future projects implemented in accordance with CPU may result in impacts to wetlands and thus require a deviation from the ESL Regulations. Wetland impacts may be considered under the following three options: the Essential Public Projects, Economic Viability Option, or Biologically Superior Option. Under the wetland deviation process for the Essential Public Projects and Economic Viability Options impacts must be avoided, but if not feasible, then impacts must be minimized to the maximum extent practicable. Under the wetland deviation process for the Biologically Superior Option, only wetland resources of low biological quality may be impacted and must result in a biologically superior outcome. The assessment of low biological quality would be specific to the resource type impacted (e.g., vernal pools, riparian, and unvegetated channels), and

would include consideration of the following factors: use of the wetland by federal and/or state endangered, threatened, sensitive, rare and/or other indigenous species, diversity of native flora and fauna enhancement or restoration potential, habitat function/ecological role, connectivity to other wetland or upland systems, hydrologic functions, status of watershed, and source and quality of water. In addition, impacts to vernal pools would require special assessments, as noted below.

a. Vernal Pools and Vernal Pool Species

Vernal pools and basins with fairy shrimp occur throughout the CPU area. As mentioned previously, basins with fairy shrimp may be vernal pools or may simply be road ruts in which fairy shrimp happen to occur. Project-specific analysis would be required for future projects and would determine what agencies (City, USFWS, RWQCB, USACE, or CDFW) have regulatory authority over basins with fairy shrimp.

Implementation of the CPU has potential to impact up to 2.95 acres of vernal pools and 0.7 acre of basins with fairy shrimp. It is recognized that as future development projects come forward, the impacts could be lessened or avoided depending on site-specific project designs.

Impacts to vernal pools would require a deviation from the City's ESL Regulations. The vernal pools which could be impacted would require the following assessments: presence of vernal pool flora and fauna, information on hydrology, determination of habitat function, and restoration potential. In addition, protocol fairy shrimp surveys would be required for all vernal pools to determine the presence or absence of these species. Impacts to fairy shrimp would require a Section 10(a)1(A) permit from the USFWS.

b. Other Jurisdictional Wetlands

Implementation of the CPU has potential to result in impacts to both wetland and non-wetland streambed waters regulated by the USACE, CDFW, and City of San Diego. In addition, the USFWS would be involved under Section 7 of the FESA during consultation initiated by the USACE during the 404 permit process if federal listed species are present. There is also the potential for additional unmapped non-wetland waters of the U.S. and streambeds to occur within the CPU area. Future development has the potential to result in disturbances to habitat and drainages that are under the jurisdiction of the USACE according to Section 404 of the Clean Water Act, RWQCB in accordance with Section 401 of the Clean Water Act, and CDFW under Section 1600 of the Fish and Wildlife Code. In addition, impacts to wetlands would require a deviation from the City's ESL Regulations. Wetland and jurisdictional impacts would be determined at the project-level and would require subsequent environmental review.

In addition, a preliminary or final jurisdictional wetlands delineation of the of the future project site shall be completed following the methods outlined in the USACE's 1987 *Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region* (2008). A determination of the presence/absence and boundaries of any Waters of the U.S. (WoUS) and Waters of the State (WoS) shall also be completed following the appropriate USACE guidance documents for determining the Ordinary High Water Mark (OHWM) boundaries. The limits of any riparian habitats on the site under the sole jurisdiction of CDFG shall also be delineated, as well as any special aquatic sites (e.g., vernal pools) that may not be within the USACE jurisdiction under the CWA or meet other federal jurisdictional criteria but are regulated by the FESA, CESA, CCC, and/or RWQCB. The City does not have take authority for vernal pools containing sensitive species. A USFWS permit would be required if vernal pools were present with sensitive species.

Projects with any impacts to wetlands must clearly demonstrate that: (1) there is no least environmentally damaging alternative that would reduce/avoid the impact; (2) impacts are minimized to the maximum extent possible; and (3) impacts are fully mitigated in accordance with the City of San Diego's Biology Guidelines.

5.4.9.2 Significance of Impacts

Impacts to wetlands, vernal pools, and other jurisdictional water resources would be significant.

5.4.9.3 Mitigation Framework

Future projects implemented in accordance with the CPU resulting in impacts to wetlands/jurisdictional resources shall be required to implement the following Mitigation Framework:

BIO-4: To reduce potential direct impacts to City, state, and federally regulated wetlands, all subsequent projects developed in accordance with the CPU shall be required to comply with USACE Clean Water Act Section 404 requirements and special conditions, CDFW Section 1602 Streambed Alteration Agreement requirements and special conditions, and the City of San Diego ESL Regulations for minimizing impacts to wetlands. Achieving consistency with these regulations for impacts on wetlands and special aquatic sites would reduce potential impacts to regulated wetlands and provide compensatory mitigation (as required) to ensure no net-loss of wetland habitats.

Prior to obtaining discretionary permits for future actions implemented in accordance with the CPU, a site-specific biological resources survey shall be completed in accordance with City of San Diego Biology Guidelines. Any

required mitigation for impacts shall be outlined in a conceptual wetland mitigation plan prepared in accordance with the City's Biology Guidelines (2012a). In addition, a preliminary or final jurisdictional wetlands delineation of the project site shall be completed following the methods outlined in the USACE's 1987 *Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region*. A determination of the presence/absence and boundaries of any WoUS and WoS shall also be completed following the appropriate USACE guidance documents for determining the OHWM boundaries. The limits of any riparian habitats on-site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (excluding vernal pools) that may not meet federal jurisdictional criteria but are regulated by California Coastal Commission and the RWQCB. Engineering design specifications based on project-level grading and site plans shall be incorporated into the project design to minimize direct impacts to wetlands, jurisdictional waters, riparian habitats, vernal pools, etc. consistent with federal, state, and City guidelines.

Additionally, any impacts to wetlands in the City of San Diego would require a deviation from the ESL wetland regulations. Under the wetland deviation process, development proposals that have wetland impacts shall be considered only pursuant to one of three options; Essential Public Projects, Economic Viability Option, or Biologically Superior Option. ESL Regulations require that impacts to wetland be avoided. Unavoidable impacts to wetlands shall be minimized to the maximum extent practicable and mitigated as follows:

- As part of the project-specific environmental review pursuant to CEQA, all unavoidable wetland impacts shall be analyzed, and mitigation shall be required in accordance with ratios shown in Tables 5.4-8a and b below. Mitigation shall be based on the impacted type of wetland and project design. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland.

- For the Biologically Superior Option, the project and proposed mitigation shall include avoidance, minimization, and compensatory measures, which would result in a biologically superior net gain in overall function and values of (a) the type of wetland resource being impacted and/or (b) the biological resources to be conserved. The Biologically Superior Option mitigation shall include either (1) standard mitigation per Table 5.4-8a, including wetland creation or restoration of the same type of wetland resource that is being impacted that results in high quality wetlands; and a biologically superior project design whose avoided area(s) (i) is in a configuration or alignment that optimizes the potential

long-term biological viability of the on-site sensitive biological resources, and/or (ii) conserves the rarest and highest quality on-site biological resources; or (2) for a project not considered consistent with "1" above, extraordinary mitigation per Table 5.4-b is required.

TABLE 5.4-8a
CITY OF SAN DIEGO WETLAND MITIGATION RATIOS
(With Biologically Superior Design)

Vegetation Community	Mitigation Ratio
Riparian	2:1 to 3:1
Vernal pool*	2:1 to 4:1
Basin with fairy shrimp*	2:1 to 4:1
Freshwater marsh	2:1

*The City does not have take authority for vernal pools. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have "take" authority for the vernal pool species occurring within the vernal pool HCP areas.

TABLE 5.4-8b
CITY OF SAN DIEGO WETLAND MITIGATION RATIOS
(Without Biologically Superior Design)

Vegetation Community	Mitigation Ratio
Riparian	4:1 to 6:1
Vernal pool*	4:1 to 8:1
Basin with fairy shrimp*	4:1 to 8:1
Freshwater marsh	4:1

*The City does not have take authority for vernal pools. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have "take" authority for the vernal pool species occurring within the vernal pool HCP areas.

As part of any future project-specific environmental review pursuant to CEQA, all unavoidable wetlands impacts (both temporary and permanent) shall be analyzed and mitigation required in accordance with Table 3.3-4 of the City Biology Guidelines; mitigation shall be based on the impacted type of wetland habitat. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland. The following provides operational definitions of the four types of activities that constitute wetland mitigation under the ESL Regulations:

- **Wetland creation** is an activity that results in the formation of new wetlands in an upland area. An example is excavation of uplands adjacent to existing wetlands and the establishment of native wetland vegetation.

- **Wetland restoration** is an activity that re-establishes the habitat functions of a former wetland. An example is the excavation of

agricultural fill from historic wetlands and the re-establishment of native wetland vegetation.

- **Wetland enhancement** is an activity that improves the self-sustaining habitat functions of an existing wetland. An example is removal of exotic species from existing riparian habitat.

- **Wetland acquisition** may be considered in combination with any of the three mitigation activities above.

Wetland enhancement and wetland acquisition focus on the preservation or the improvement of existing wetland habitat and function and do not result in an increase in wetland area; therefore, a net loss of wetland may result. As such, acquisition and/or enhancement of existing wetlands shall be considered as partial mitigation only for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio.

For permanent wetland impacts that are unavoidable and minimized to the maximum extent feasible, mitigation shall consist of creation of new in-kind habitat to the fullest extent possible and at the appropriate ratios. If on-site mitigation is not feasible, then at least a portion of the mitigation must occur within the same watershed. The City's Biology Guidelines and MSCP Subarea Plan require that impacts on wetlands, including vernal pools, shall be avoided, and that a sufficient wetland buffer shall be maintained, as appropriate, to protect resource functions/values. The project specific biology report shall include an analysis of on-site wetlands (including City, state, and federal jurisdiction analysis) and, if present, include project alternatives that fully/substantially avoid wetland impacts. Detailed evidence supporting why there is no feasible less environmentally damaging location or alternative to avoid any impacts must be provided for City staff review, as well as a mitigation plan that specifically identifies how the project is to compensate for any unavoidable impacts. A conceptual wetland mitigation plan (which includes identification of the mitigation site) shall be approved by City staff prior to the release of the draft environmental document. Avoidance shall be the first requirement; mitigation shall only be used for impacts clearly demonstrated to be unavoidable.

Prior to the commencement of any construction-related activities on-site for projects impacting wetland habitat (including earthwork and fencing) the applicant shall provide evidence of the following to the Assistant Deputy Director (ADD)/Environmental Designee prior to any construction activity:

- Compliance with USACE Section 404 nationwide permit;
- Compliance with the RWQCB Section 401 Water Quality Certification; and
- Compliance with the CDFW Section 1601/1603 Streambed Alteration Agreement.

***Vernal Pools and Vernal Pool Species*:** Impacts to vernal pools shall require assessments of vernal pool flora and fauna, hydrology, habitat function, and restoration potential and protocol fairy shrimp surveys, in addition to the requirements listed above. Impacts to fairy shrimp shall require either a section 10(a)1(A) permit or Section 7 consultation Biological Opinion from USFWS. If the vernal pool HCP is adopted, the City will receive take authorization for the seven vernal pool species.

Mitigation for projects impacting vernal pools shall include salvage of sensitive species from vernal pools to be impacted, introduction of salvaged material into restored vernal pool habitat where appropriate (e.g., same pool series) and maintenance of salvaged material pending successful restoration of the vernal pools. Salvaged material shall not be introduced to existing vernal pools containing the same species outside the vernal pool series absent consultation with and endorsement by vernal pool species experts not associated with the project (e.g., independent expert). The mitigation sites shall include preservation of the entire watershed and a buffer based on functions and values; however, if such an analysis is not conducted, there shall be a default of a 100-foot buffer from the watershed.

5.4.9.4 Significance after Mitigation

Compliance with CPU policies and established development standards and regulations would serve to reduce impacts to wetlands, jurisdictional resources, vernal pools and vernal pool species to a degree, but cannot guarantee that all future project-level impacts would be avoided or mitigated to below a level of significance. Because the extent of future development is unknown at this time, the degree of impact and applicability, feasibility, and success of these measures cannot be accurately predicted for each specific project at this time. Therefore, direct and/or indirect impacts to wetlands, jurisdictional resources vernal pools and vernal pool species are considered significant and unavoidable at the program-level.

5.4.10 Issue 7: Noise Generation

Would the temporary construction noise from the CPU or permanent noise generators (including roads) adversely impact sensitive species (e.g., coastal California gnatcatcher) within the MHPA?

5.4.10.1 Impacts

The CPU incorporates several policies related to the reduction of temporary and permanent noise generators. Even with the implementation of these policies, the increase in intensity of development would result in increased noise, as discussed in Section 5.10 of this PEIR. Increased noise from future construction, roadways or transit adjacent to MHPA would result in a temporary increase in ambient noise. While construction noise would be short-term, the introduction of certain types of land uses that would generate noise, such as commercial or recreation, would be long-term.

The following CPU Circulation Element roads are planned within, adjacent to or would cross the MHPA: Beyer Boulevard, Airway Road, Dennery Road, Heritage/Otay Valley Road, Aviator Road, and La Media Road. Land uses and roadway alignments adjacent to the MHPA have the potential for temporary and/or permanent noise impacts in these areas.

Increased noise levels have the potential to disrupt wildlife, especially during the breeding season, and would potentially affect the population of sensitive species such as the coastal California gnatcatcher. Adverse responses due to increased noise would include hearing loss, temporary masking of vocalizations commonly used during breeding season, nest abandonment, and/or decrease in predator awareness, resulting in a decrease in reproductive and overall fitness of noise-sensitive species. With the exception of federally or state listed species, impacts to sensitive species outside of the MHPA are not restricted but would require mitigation in accordance with the City's Biology Guidelines.

Implementation of the CPU has the potential to impact sensitive wildlife species indirectly by placing development adjacent to MHPA.

5.4.10.2 Significance of Impacts

There is a potential for temporary noise impacts to wildlife from construction and permanent noise impacts from the introduction of noise generating land uses adjacent to MHPA. Temporary and/or permanent noise impacts to wildlife within the MHPA would be significant.

5.4.10.3 Mitigation Framework

Mitigation for impacts to sensitive wildlife species (including temporary and permanent noise impacts) resulting from future projects implemented in accordance with the CPU are included in Sections 5.1.6.3 (Land Use) and 5.4.4.3 (Biological Resources) Please refer to Mitigation Framework BIO-1 through BIO-4 and LU-2 (MHPA Land Use Adjacency Guidelines).

5.4.10.4 Significance after Mitigation

At the program-level, compliance with the GP and CPU policies, the ESL Regulations, MHPA Land Use Adjacency Guidelines, the City's Biology Guidelines, and the above Mitigation Framework measures would serve to reduce indirect noise impacts to sensitive wildlife species to below a level of significance.

THIS PAGE IS INTENTIONALLY BLANK.

5.5 Historical Resources

This section addresses historical and archaeological resources and is based on the Cultural Resources Technical Report for the CPU, prepared by RECON in 2012 (Appendix E). It should be noted however, that the conclusions found in the Cultural Resources Technical Report for CPU differ from those contained in this EIR section. The conclusion of "Significant and Mitigated" was determined after a comprehensive review of the CPU and associated policies, goals and zoning actions which will guide future development in the CPU area. Historical resources includes all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places (NRHP), as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources or the City of San Diego Historical Resources Register. Historical resources are site improvements, buildings, structures, historic district signs, features (including significant trees or other landscaping), places, place names, interior elements and fixture designated in conjunction with a property, or other objects of historical archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the City and the region. They include building structures, objects, archaeological sites, districts or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. Also included are distinguishing architectural characteristics and TCPs. Historical resources in the San Diego region span a timeframe of at least the last 10,000 years and include both the prehistoric and historic periods.

5.5.1 Existing Conditions

5.5.1.1 Historic Background

San Diego County has a long cultural history. A detailed chronology of the prehistoric and historic settlement is contained in Appendix E.

a. Ethnographic Background

Prior to European settlement, a variety of usable resources were on Otay Mesa. The coastal sage scrub, chamise chaparral, and maritime succulent scrub communities contain many plants used by the Kumeyaay population. These plants were used for food, medicine, ceremonies, and as a source of wood. Animals included jackrabbit, bush rabbit, cottontail rabbit, ground squirrel, woodrats, other small rodents, deer, and various small birds and reptiles. Another resource was Santiago Peak Volcanics, a raw material for flaked stone tool production, which was easily obtainable.

Otay Mesa is in the traditional territory of the Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño). At the time of the Spanish invasion, the Kumeyaay occupied the southern two-thirds of San Diego County. The Kumeyaay belong to the Hokan language family, which includes the lower Colorado River tribes (e.g., Quechan [Yuma], Mojave, Halchidhoma, Cocopa) and Arizona groups (e.g., Maricopa, Havasupai, Paipai) to whom they are closely related.

Traditional Kumeyaay territory extended over the southern two-thirds of San Diego County, from Agua Hedionda (south of Carlsbad) south to some 20 miles below Ensenada, in northern Baja California, Mexico. On the west, their territory started at the Pacific Ocean and extended to the mountains of the Peninsular Range and into the desert just beyond. Kumeyaay territory included a number of ecological zones including rocky shore and sandy ocean beaches on the coast. As one moved east from the shore, there were grasslands, marshes, the coastal chaparral-covered Otay Mesa, oak groves, riparian woodlands, cypress woodland on Otay Mountain, and pine and cedar forest in the Laguna and Cuyamaca Mountains.

Subsistence for mountain and valley people focused on gathering plant foods. Acorns are thought to have been the most important dietary staple for the Kumeyaay. Agave (mescal) was an important food found along the arid eastern slopes of the Peninsular Range. Hunting contributed to the diet in a minor way. It was focused on small game, primarily rabbits and rodents. These were taken with bow and arrow, throwing stick (macana), or nets. Hunting of large game was somewhat less important, with deer and bighorn sheep taken on occasion. Large game provided leather and sinew for clothing and crafts.

The most basic social and economic unit was the patrilocal extended family. Within the family, there was a basic division of labor based upon gender and age, but it was not rigid. Women made pottery and basketry, gathered plant resources, ground seeds and acorns, prepared meals, and so on. Men hunted, fished, helped collect and carry acorns and other heavy tasks, and made tools for the hunt. Old women were active in teaching and caring for children while younger women were busy with other tasks. Older men were involved in politics, ceremonial life, teaching young men, and making nets, stone tools, and ceremonial paraphernalia.

Settlement systems typically consisted of two or more seasonal villages with temporary camps radiating away from these central places. For example, the Kwaaymii Band, which spent summers at Mount Laguna, migrated downslope to Vallecitos to spend the winter in the desert.

b. Prehistoric Background

As described in the Cultural Resources Technical Report, the prehistory of Otay Mesa can generally be divided into three major periods: Paleoindian (also referred to as PaleoAmerican), Archaic, and Late Prehistoric. An additional pre-Paleoindian period

(Malpais Period) is also recognized by some researchers. The dates associated with these periods range from pre-12,000 B.P. to 1769 with some considerable regional variation. These four periods are discussed in detail below.

Malpais Period (prior to 12,000 B.P.)

A number of researchers posit a period that predates the PaleoAmerican period. This pre-PaleoAmerican period is now often called the Malpais period, a term that was adapted from the early work of Malcolm Rogers in 1939, who used it to refer to what is now the first portion of the San Dieguito and Lake Mojave complex. This complex is characterized by heavily patinated choppers, scrapers, and other crude, core-based tools typically found deeply embedded in desert pavements. Many researchers are skeptical of the existence of this period and obtaining reliable dates has been elusive.

PaleoAmerican Period (12,000 to 7,000 B.P.)

The earliest well-documented sites in the San Diego area belong to the San Dieguito complex, which are thought to be from the PaleoAmerican period. Related materials have been found in the Mojave Desert and in the Great Basin, referred to as the Lake Mojave Complex. The San Dieguito and Lake Mojave Complex are thought by most researchers to have an emphasis on big game hunting. The assemblage is dominated by finely made scraping and chopping tools of felsite or fine-grained basalt. Large-stemmed Lake Mojave and Silver Lake types. Leaf-shaped projectile points are relatively abundant while seed grinding technology was limited or absent (Warren 1984).

Archaic Period (7,000 to 1,500 B.P.)

This period brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic Period are called the La Jollan Complex along the coast, and the Pauma Complex inland (True 1980). Pauma Complex sites lack the shell that dominates many La Jollan sites. Along with an economic focus on gathering plant resources, the settlement system appears to have been more sedentary. There appears to have been a shift away from the northern San Diego coast in the middle of the period. This is most likely a response to the depletion of coastal resources and the siltation of lagoons. The La Jollan assemblage is dominated by rough, cobble-based choppers and scrapers, and slab and basin metates. Bedrock milling is absent and projectile points are rare, although Elko series points are occasionally noted (Justice 2002).

Late Prehistoric Period (1,500 B.P. to 1769)

The Late Prehistoric period of the southern San Diego coast and foothills is characterized by the Cuyamaca Complex.

The Cuyamaca complex is characterized by the presence of steatite arrowshaft straighteners, steatite pendants (some of these steatite items are incised with crosshatching), and steatite comales (heating stones, some of which are biconically drilled on one end). Ceramics appear for the first time during this period in the form of Tizon Brownware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic "Yuman bow pipes," ceramic rattles, and miniature pottery vessels. Stone artifacts include various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, and mortars and pestles. Projectile points consist of Desert Side-Notched and less commonly Cottonwood Series projectile points (True 1966, 1970). These small points indicate the advent of the bow and arrow.

c. Aviation and Military History of Otay Mesa

Along with its agricultural history, aviation was important in Otay Mesa's history and can be traced back to the 1880s. In 1883, 20 years before the Wright brothers' famous flight in North Carolina, John Joseph Montgomery made the world's first controlled flight with a fixed curved-wing glider from the top of a hill on Otay Mesa. In 1918, the Army Air Corps established East Field along Otay Mesa Road. During the 1920s, the Navy began to have a presence at East Field as the airstrip provided a practice landing field for pilots in training. In 1935, East Field was transferred to the Navy and was used for training prior to and during World War II. East Field was renamed Brown Field in 1943 in memory of Commander Melville Stuart Brown, killed in a plane crash near Descanso, California. After World War II, the Navy leased Brown Field to San Diego County, but reopened the facility with the outbreak of the Korean War in 1951. The City of San Diego annexed Otay Mesa in 1956 and acquired Brown Field in 1962 in order to relieve congestion at Lindbergh Field. The conversion of Brown Field to a general aviation airport brought new businesses, industries, and agencies to Otay Mesa. The Border Patrol moved its light planes to Brown Field and the U.S. Customs Service changed the port of entry for San Diego from Lindbergh Field to Brown Field.

5.5.1.2 Otay Mesa Historical Resource Investigations

a. Overview

Otay Mesa has been the subject of numerous cultural resource evaluations from surveys through data recovery programs over the last 20 years. The entire CPU area was surveyed as part of a larger area by the County of San Diego in 1983. Additional surveys have been conducted since that time. Figure 5.5-1 indicates these survey locations.

An Otay Mesa management plan for prehistoric resources was developed by Gallegos & Associates as an outgrowth of negotiations between Caltrans and the Office of Historic Preservation to provide consistent site definitions and a management strategy for the kinds of resources present on Otay Mesa. This plan begins with a discussion of recorded site types using information drawn from site record forms. Habitation sites, temporary camps,

lithic scatters, quarry, shell middens, and non-sites are resource types defined for the baseline study area. After the initial discussion of recorded site types on the mesa, Gallegos et al. (1998) determined that three site types dominate Otay Mesa: habitation sites, artifact scatters/temporary camps, and lithic scatters. Site types are defined in Table 5.5-1.

TABLE 5.5-1
SITE TYPOLOGY OF OTAY MESA PREHISTORIC RESOURCES

Type	Description
Habitation	A habitation site contains a variety of artifacts that may include flaked lithics, ground stone, ceramics, and faunal material, and possibly bedrock milling in a late prehistoric site. The presence of some or all of these artifacts, and possibly features, suggests that more than one activity occurred at the site. Habitation sites contain a midden deposit indicating either repeated seasonal or semi-permanent occupation. This site type is sometimes referred to as a village site.
Temporary Camp	A temporary camp site is similar to a habitation site in that it has a variety of artifact types indicating more than one activity occurred at the site. However, it is different from a habitation site since it has little or no midden, a less complex assemblage, and fewer artifacts overall. These attributes indicate that the site was occupied for a short period of time.
Artifact scatters	Artifact scatters are defined as a surface scatter of two or more artifact types, such as flaked lithic, tools, ground stone, and ceramics, with no subsurface deposit. Faunal material such as bone and shell can also occur on this type of site. An artifact scatter may represent a stopping place on a journey, an area where a task was completed, or a special purpose site.
Lithic Scatter	A scatter of debitage, cores, bifaces, and other flake- and core-based tools that is temporally non-diagnostic.
Lithic Reduction Concentration	Generally, a lithic reduction concentration is a dense concentration of debitage and cores within a localized area.
Bedrock Milling	These are features located on large boulders or bedrock outcrops that contain one or more milling features, such as mortars, basin metates, or milling slicks. Bedrock milling sites are specific task sites. In some cases surface and/or subsurface deposit of artifacts may be present around the bedrock. Bedrock milling features can occur as part of habitation or temporary camp sites.
Shell Concentration/ Shell Midden	A shell concentration may or may not have a subsurface deposit. If testing identifies a subsurface deposit and ground stone implements are present, then the site may be a temporary camp or habitation site, depending on the complexity of the assemblage. A shell midden site without a complex assemblage or extensive milling equipment represents a place where intensive processing of shellfish resources was the main activity.
Quarry	This is a place where the principal activity consisted of procuring raw lithic material for tools. Quarry sites may be extensive and involve actual mining of lithic outcrops for tool stone material.
Isolates	Isolated tools and tool clusters that do not meet the threshold for another site type.

b. Records Search Results

Archaeological Resources

The CPU area has been surveyed for cultural resources and many portions have been examined multiple times. According to a records search review at the South Coast Information Center (SCIC) for the CPU area conducted as part of the Cultural Resources Technical Report, there are 262 historic and prehistoric sites/structures recorded within the CPU area boundaries. Of the 262 recorded sites, 136 have been partially or completely developed. Of these 136 sites, 83 have been completely destroyed and 53 have been impacted to some extent. A total of 126 known sites that remain within the CPU area have not been impacted by development. Table 5.5-2 lists all of the recorded sites within the CPU area.

In addition, there are 56 isolates filed at the SCIC. These isolates consist of one or two prehistoric artifacts and are not considered significant historical resources under City of San Diego or CEQA criteria, and therefore are not included in the discussion of potential impacts.

Historic Buildings, Structures, and Objects

Seven of the recorded structures/sites within the CPU have been designated as Historical Landmarks by the San Diego Historical Resources Board (HRB). Five of these are the buildings that comprise P37-018246, the proposed Auxiliary Naval Air Station Brown Field Historic District (the tower and four nose-end hangars). This site is also listed on the NRHP. The sixth structure (P37-018256) is the Auxiliary Naval Air Station Brown Field latrine (Facility 2044). The last site is the Alta School site (CA-SDI-10628). Although this site is within the Auxiliary Naval Air Station Brown Field boundary, it predates the Navy facility. CA-SDI-10628 was tested in 1996 by Gallegos & Associates and was found to contain both historic and prehistoric components.

c. Designated Historical Resources

Designated resources include the Auxiliary Naval Air Station Brown Field Historic District (HRB Site #405-408), Building Facility 2004 at Brown Field (HRB site #409), Building Facility 2044 (HRB Site #410), and the Alta School Site (HRB Site #411). These historical resources are designated locally for various reasons such as their distinctive architecture, association with the war effort, archaeological significance, and eligibility for listing on the National Register.

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA

Site #	Site Type	Status	Significance
P-13-013724	Historic		
P-13-014296	Isolate		Not significant
P-13-014297	Isolate		Not significant
P-13-014298	Isolate		Not significant
P-13-014299	Isolate		Not significant
P-13-014300	Isolate		Not significant
P-13-014301	Isolate		Not significant
P-13-014303	Isolate		Not significant
P-13-014802	Isolate		Not significant
P-13-015977	Isolate		Not significant
P-13-015978	Isolate		Not significant
P-13-015979	Isolate		Not significant
P-13-015980	Historic	Location based on 1903 USGS for homestead in junkyard now	Undetermined
P-13-015981	Historic	Location based on 1903 USGS possible Piper farmstead & 1928	Undetermined
P-13-015982	Historic	Location based on 1903/1928 aerial	
P-13-015983	Historic	Location based on 1903 USGS possible Lampe farmstead	Undetermined
P-13-015987	Historic	Location of homestead based on 1903 and 1928 USGS, survey found heavy disturbance	Undetermined
P-13-015988	Historic	Location of church and cemetery, church demolished, possible unmoved graves.	Undetermined
P-13-016189	Isolate		Not significant
P-13-016190	Isolate		Not significant
P-13-016524	Isolate		Not significant
P-13-016525	Isolate		Not significant
P-13-016526	Isolate		Not significant
P-13-018246	Historic	Aux. NAS Brown Field hist. dist. 5 buildings.	NRHP 35,eligible
P-13-018247	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018250	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018251	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018252	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018253	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018254	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018255	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018256	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
P-13-018257	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018258	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018259	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018260	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-018261	Historic	Other WW II era buildings not eligible for inclusion	NRHP 6z
P-13-025298	Isolate		Not significant
CA-SDI-10055	Lithic Scatter	In Dennery Ranch Open space	Unknown
CA-SDI-10056	Lithic Scatter	Tested 1990- mitigated, area developed	Previously Mitigated
CA-SDI-10057	Lithic Scatter	Not relocated 1999	Unknown
CA-SDI-10058a	Village/Base Camp	Tested 1990 developed	Unknown
CA-SDI-10058b	Village/Base Camp	Tested 1990 developed	Unknown
CA-SDI-10058c	Village/Base Camp	Tested 1990 developed	Unknown
CA-SDI-10059	Lithic Scatter	On aerial appears developed	Unknown
CA-SDI-10060	Lithic Scatter/Historic Features	Tested/Mitigated 1992	Unknown
CA-SDI-10072	No description	Combined w/other sites new#CA-SDI-12337	
CA-SDI-10185	Habitation	Mitigated 1987,1988 developed	Previously Mitigated
CA-SDI-10186	Sparse Lithic Scatter	Mitigated 1987,1989 part in MSCP preserve	Not significant
CA-SDI-10187	Temporary Camp	Tested mitigated 1997	Not significant
CA-SDI-10188	Temporary Camp	Tested 1990-Junkyard & road widening heavily impacted	Not significant
CA-SDI-10189	Temporary Camp/Special processes	Tested 1987 -area developed, mitigated	Previously Mitigated
CA-SDI-10190	Temporary Camp/Special processes	Tested 1987 -area developed, mitigated	Previously Mitigated
CA-SDI-10191	Sparse Lithic Scatter/Plant Processing	Tested 1987 -area developed, mitigated/northern end may still exist	Not significant
CA-SDI-10192	Sparse Lithic Scatter/Processing	Tested 1987-mitigated ,developed	Not significant
CA-SDI-10193	Sparse Lithic Scatter/Processing	Tested 1987 most now in mitigation, biological preserves	Not significant
CA-SDI-10194	Sparse Lithic Scatter/Processing	Tested 1987 mitigated, developed	Not significant
CA-SDI-10195	Sparse Lithic Scatter/Processing	Tested 1987 mitigated, developed	Not significant
CA-SDI-10196	Temp. Camp	Part may be in Dennery Ranch, upper preserve area heavily disturbed	Unknown

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-10197	Temp. Camp	Tested 1987 mitigated, developed	Not significant
CA-SDI-10198	Base Camp	Tested 1987, mitigated, most now in Dennery up preserve	Not significant
CA-SDI-10199	Sparse Lithic Scatter	Area not developed, no work recorded	Undetermined
CA-SDI-10200	Lithic Scatter/Processing	Tested 1987,mitigated,developed	Not significant
CA-SDI-10201	Temp. Camp	Not tested, area currently in MHPA open space in Dennery Canyon	Unknown
CA-SDI-10202	Sparse Lithic Scatter/Processing	Tested 1987,mitigated,part developed, part in revegetation area	Not significant
CA-SDI-10203	Processing Site	Tested 1987 mitigated area developed	Not significant
CA-SDI-10204	Artifact Scatter/no form	Tested in 1987, mitigated, currently in open space	Not Significant
CA-SDI-10205	Sparse Lithic Scatter/Processing	Tested 1987 mitigated in MHPA, open space	Previously Mitigated
CA-SDI-10206	Lithic Scatter(Gallegos)	Currently undeveloped, may be impacted by Beyer Blvd. Extension	Unknown
CA-SDI-10207	Lithic Scatter(Gallegos)	Currently undeveloped, may be impacted by Beyer Blvd. Extension	Unknown
CA-SDI-10208	Quarry/ Workshop	Tested 1987 mitigated, in undeveloped area	Not significant
CA-SDI-10209	Sparse Lithic Scatter	Not relocated 1999,area tested nothing found, 50&60s builders, no work remains	Not significant
CA-SDI-10210	Temp Camp	Tested 1990/1999 mitigated in MHPA open space	Not significant
CA-SDI-10245	Lithic Scatter	Tested mitigated for SR-905	Previously Mitigated
CA-SDI-10281		Does not exist	
CA-SDI-10285	Lithic Scatter	Work unknown in MHPA, open space	Unknown
CA-SDI-10286	Sparse Lithic Scatter/Processing	Labeled as 10281, Tested 1987 mitigated	Undetermined
CA-SDI-10511	Lithic Scatter	Tested 1994 mitigated, developed	Not significant
CA-SDI-10512	Lithic Scatter	Not on record search map, undeveloped area, on known testing	Undetermined
CA-SDI-10513	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10514	Lithic Scatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-10515	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10516	Sparse Lithic Scatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-10517	Sparse Lithic Scatter	Currently undeveloped area no known testing	Undetermined
CA-SDI-10518	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10519	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10520	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-10521	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10522	Sparse Lithic Scatter	Tested in 1990 by ASM Affiliates, mitigated	Previously Mitigated
CA-SDI-10523	Sparse Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10524	Sparse Lithic Scatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-10525	Sparse lithic scatter	Tested 1994, mitigated, site developed	Previously Mitigated
CA-SDI-10526	Sparse Lithic Scatter	Tested 1994 mitigated	Not significant
CA-SDI-10527	Sparse lithic scatter	Appears to be in developed area, tested 1994, mitigated	Not significant
CA-SDI-10608	Lithic Scatter	Tested 1995 area not yet mitigated, developed	Not significant
CA-SDI-10616a	Sparse Lithic Scatter	Tested 1986 part of site area developed, mitigated	Not significant
CA-SDI-10616b	Sparse Lithic Scatter	Tested 1986 part of site area developed, mitigated	Not significant
CA-SDI-10617	Sparse Lithic Scatter	Tested 1986 mitigated, area not developed	Not significant
CA-SDI-10618	Lithic Scatter	Tested 1986, area developed. mitigated	Not significant
CA-SDI-10619	Habitation Area	Data recovery 1987 part of site now destroyed	Significant
CA-SDI-10620a	Habitation Area	Tested 1986 in open space	Significant
CA-SDI-10620b	Quarry	Tested 1986 in open space	Significant
CA-SDI-10621a	Workshop/Habitation	Data recovery 1987 mitigated, area developed	Significant
CA-SDI-10621b	Sparse Lithic Scatter	Collected 1987 mitigated	Not significant
CA-SDI-10621d	Sparse Lithic Scatter	Collected 1987 mitigated	Not significant
CA-SDI-10621e	Sparse Lithic Scatter	Collected 1987 mitigated	Not significant
CA-SDI-10621f	Sparse Lithic Scatter	Collected 1987 mitigated	Not significant
CA-SDI-10621g	Sparse Lithic Scatter	Collected 1987 mitigated	Not significant
CA-SDI-10622	Lithic Scatter	Currently undeveloped area, no known testing	Undetermined
CA-SDI-10623	Temporary Camp	Southern half developed, north undeveloped, no testing recorded	Undetermined
CA-SDI-10628	Historic site of Alta School	CA-SDI-10608 combined w/ this site, tested 1995, not developed	Undetermined
CA-SDI-10649	Lithic Scatter	No record of testing currently in MHPA open space	Not determined
CA-SDI-10650	Lithic Scatter	No record of testing currently in MHPA open space	
CA-SDI-10734	Sparse Lithic Scatter	Tested mitigated for SR-905	Not significant
CA-SDI-10735A	Lithic Scatter/Processing	No record of testing, currently undeveloped	Undetermined
CA-SDI-10735B	Lithic Scatter/Processing	No record of testing, currently undeveloped	Undetermined
CA-SDI-10735C	Lithic Scatter/Processing	No record of testing, currently undeveloped	Undetermined
CA-SDI-10738	Lithic Scatter	No record of testing, destroyed by housing	Unknown

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-10739	Temp Camp	No record of test or mitigation., but area is developed	Unknown
CA-SDI-10748	Lithic Scatter	Tested 1987, east part of site developed	Not significant
CA-SDI-10800	Habitation Site	Tested in past, data recovery, mitigation necessary	Significant
CA-SDI-10801	Habitation Site	Tested in 1987, data recovery, mitigation necessary	Significant
CA-SDI-10802	Lithic Scatter	Tested 1987, data recovery, currently not developed	Not significant
CA-SDI-10803	Lithic Scatter	Tested 1987, data recovery, currently not developed	Not significant
CA-SDI-10804	Habitation Site	Tested 1987, needs data recovery, mitigation	Significant
CA-SDI-10805	Sparse Lithic Scatter	Tested 1987, mitigated, currently not developed	Not significant
CA-SDI-10806	Lithic Scatter	Tested 1987, mitigated, currently not developed	Not significant
CA-SDI-10807	Sparse Lithic Scatter	Tested 1987, mitigated, currently not developed	Not significant
CA-SDI-10808	Habitation Site	Tested 1987, needs data recovery, currently not dev.	Significant
CA-SDI-10809	Habitation Site	Tested 1987, needs data recovery, currently not dev.	Significant
CA-SDI-10810	Lithic Scatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-10811	Habitation Site	Tested 1987, data recovery, mitigation, not currently dev.	Significant
CA-SDI-10963	Sparse Lithic Scatter	Testing 1988 no determination, northern part developed	Undetermined
CA-SDI-11049	Two metates	Nothing known	Not significant
CA-SDI-11065	Lithic Scatter	Tested 1986 mitigated not currently developed	Not significant
CA-SDI-11079	Habitation	Gallegos says needs mitigation, tested 1994 no indication of mitigation but developed	Significant
CA-SDI-11210	Lithic Scatter	Tested 1989 mitigated not developed	Not significant
CA-SDI-11211	Lithic Scatter	Tested 1989 mitigated not developed	Not significant
CA-SDI-11212	Lithic Scatter	Tested 1989,1992,1999,mitigated, not developed	Not significant
CA-SDI-11213	Lithic Scatter	Tested 1989,1992,1999,mitigated, not developed	Not significant
CA-SDI-11214	Lithic Scatter	Tested 1989,1992, mitigated, not developed	Not significant
CA-SDI-11215	Lithic Scatter	Tested 1989,1992, mitigated, not developed	Not significant
CA-SDI-11216	Lithic Scatter	Tested 1989,1992, mitigated, not developed	Not significant
CA-SDI-11217	Lithic Scatter/Historic Features	Tested 1989,1992, not mitigated, not developed	Undetermined

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-11218	Lithic Scatter/ Historic Features	Tested 1989,1992, not mitigated, not developed	Undetermined
CA-SDI-11219	Lithic Scatter/ Historic Features	Tested 1989,1992, not mitigated	Undetermined
CA-SDI-11220	Lithic Scatter	Tested 1989,1992,2002, mitigated	Not significant
CA-SDI-11221	Historic	Tested 1989 by Smith	Undetermined
CA-SDI-11363	Lithic Scatter	Tested 1989,1992,2002, mitigated	Not significant
CA-SDI-11367/11368	Sparse lithic scatter	Tested	Not significant
CA-SDI-11423	Lithic Scatter	Tested 1997 mitigated most of destroyed	Not significant
CA-SDI-11424	Habitation	Tested 1997 data some recovery, mitigation necessary, developed	Significant
CA-SDI-11671	Lithic Scatter	Tested 1991 not known if mitigated, not developed	Undetermined
CA-SDI-11672	Sparse Lithic Scatter	No testing recorded, not developed	Undetermined
CA-SDI-11673	Lithic Scatter	Tested 1991 not known if mitigated, not developed	Undetermined
CA-SDI-11680	Lithic Scatter	No testing or other work recorded, not developed	Undetermined
CA-SDI-11821/H	Piper Ranch Complex	Tested in 1995 by Gallegos and Assoc., area now developed	Previously Mitigated
CA-SDI-11822	Artifact Scatter	Tested 1990 not known if mitigated	Undetermined
CA-SDI-11944	Lithic Scatter	Tested 1990 mitigated in open space	Not significant
CA-SDI-11951	Lithic Scatter	Tested 1990,1992,1999 mitigated	Not significant
CA-SDI-11969	Quarry	Tested 1990 mitigated in open space	Not significant
CA-SDI-12229H	Artifact Scatter/ Historic	No testing recorded in undeveloped area	
CA-SDI-12257	Lithic Scatter	No testing recorded by US/Mexico border	Undetermined
CA-SDI-12258	Sparse Lithic Shatter	No testing recorded at least part destroyed	Undetermined
CA-SDI-12259	Sparse Lithic Shatter	No testing recorded, not currently developed	Undetermined
CA-SDI-12273H	Historic	Tested 1992,1994 mitigated	Not significant
CA-SDI-12337	Lithic Scatter	Combined several sites/tested 1978,1992, 1994,1996	Not significant
CA-SDI-13532	Sparse Lithic Scatter	Tested 1994, mitigated, site developed	Not significant
CA-SDI-14081	Sparse Lithic Scatter	Tested 1995 mitigated for road widening	Not significant
CA-SDI-14082	Sparse Lithic Scatter	Tested 1995 for Otay Mesa Rd. Widening, that portion mitigated	Not significant
CA-SDI-14083	Sparse Lithic Scatter	No record of testing, in MHPA Preserve	Undetermined
CA-SDI-14084	Sparse Lithic Scatter	No record of testing, in MHPA Preserve, possibly some disturb. by preserve vegetation	Undetermined
CA-SDI-14085H	Historic	Tested 1995 mitigated	Not significant
CA-SDI-14086H	Historic	Mitigated for SR-905	Not significant
CA-SDI-14087	Sparse Lithic Scatter	Mitigated for SR-905	Not significant
CA-SDI-14088	Sparse Lithic Scatter	No testing recorded poss. Impact from develop to the north	Undetermined
CA-SDI-14089	Artifact Scatter	Mislabeled on GIS map as 14889	Undetermined

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-14090	Lithic Scatter	No testing recorded, in undeveloped area	Undetermined
CA-SDI-14091	Artifact Scatter	No testing recorded, in undeveloped area	Undetermined
CA-SDI-14092	Sparse Lithic Scatter	No testing recorded in disturbed area	Undetermined
CA-SDI-14093	Sparse Lithic Scatter	No testing recorded next to developed area	Undetermined
CA-SDI-14094	Sparse Lithic Scatter	No testing recorded in undeveloped area	Undetermined
CA-SDI-14210	Historic	No testing recorded	Undetermined
CA-SDI-14238	Lithic Scatter	No testing recorded in undeveloped area	Undetermined
CA-SDI-14239	Lithic Scatter	No testing, not significant under Otay Mesa Management plan	Not significant
CA-SDI-14241	Lithic Scatter	Tested 1996 mitigated	Not significant
CA-SDI-14246	Lithic Scatter	Tested 1996,1999	Not significant
CA-SDI-14248	Lithic Scatter	Tested 1996,1999	Not significant
CA-SDI-14250H	Historic Scatter	Tested 1996, not mitigated	Undetermined
CA-SDI-14252	Sparse Lithic Scatter	Tested 1996, not mitigated	Undetermined
CA-SDI-14371	Sparse Lithic Scatter	No testing recorded in undeveloped area	Undetermined
CA-SDI-14559	Sparse Lithic Scatter	Tested 1996, not mitigated	Undetermined
CA-SDI-14728	Artifact Scatter	Tested 1996, not mitigated	Undetermined
CA-SDI-14729	Lithic Scatter	No testing recorded in undeveloped area	Undetermined
CA-SDI-16264H	Historic	Mitigated 2002	Not significant
CA-SDI-16397	Lithic Shatter/Shell	Tested 2002 data recovery necessary	Significant
CA-SDI-16398	Lithic Shatter/Shell	No testing recorded in undeveloped area	Undetermined
CA-SDI-16704	Sparse Lithic Scatter	No testing recorded in undeveloped area	Undetermined
CA-SDI-16705	Artifact Shatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-16706	Sparse Lithic Scatter	Tested in 2005 by ECORP Consulting, to be developed	Not significant
CA-SDI-17100	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17101	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17102	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17103	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17104	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17105	Sparse Lithic Scatter	Not tested considered non site by Otay Mesa Mang. Plan	Not significant
CA-SDI-17517	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-17518	Artifact scatter	Tested in 2005 by ECORP, to be developed	Significant
CA-SDI-17519	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-17520	Lithic scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-17521	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-17522	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-17523	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-17524	Lithic Scatter	Tested in 2005 by ECORP, to be developed	Not significant
CA-SDI-6699	Lithic Scatter	Tested and mitigated late 1980s developed	Not significant
CA-SDI-6941A-E	Artifact Scatter	Loci A-E mitigated for Cal-Terraces1987 development	Previously Mitigated
CA-SDI-6941F	Artifact Scatter	Mitigated 1995 for Otay Mesa Rd widening	Previously Mitigated
CA-SDI-6941H-X	Artifact Scatter	Tested in 1996 for Otay Mesa Rd widening	Not significant
CA-SDI-7208	Lithic Scatter	Portions mitigated for various projects 1988,1997 portions still undeveloped	Undeveloped portions undetermined
CA-SDI-7550	Temporary Camp	No record of testing, in undeveloped area	Undetermined
CA-SDI-7604	Temp Camp	Mitigated 1987, 1997 developed	Not significant
CA-SDI-7857	Lithic Scatter	Tested 1993 mitigated appears undeveloped	Not significant
CA-SDI-7983	Lithic Scatter/ Processing	Tested 1987 mitigated developed	Not significant
CA-SDI-7984	Lithic Scatter/ Processing	Tested 1987 mitigated developed	Previously Mitigated
CA-SDI-7985	Lithic Scatter	No record of test or mitigation., but area is developed	Undetermined
CA-SDI-8053	Isolate		Not significant
CA-SDI-8054	Isolate		Not significant
CA-SDI-8055	Isolate		Not significant
CA-SDI-8056	Isolate		Not significant
CA-SDI-8057	Isolate		Not significant
CA-SDI-8058	Isolate		Not significant
CA-SDI-8059	Isolate		Not significant
CA-SDI-8060	Isolate		Not significant
CA-SDI-8061	Isolate		Not significant
CA-SDI-8062	Isolate		Not significant
CA-SDI-8063	Isolate		Not significant
CA-SDI-8064	Isolate		Not significant
CA-SDI-8083	Lithic Scatter	Mitigation date not known area developed	Unknown
CA-SDI-8640	Artifact Scatter	Tested 1987,1988,mitigated currently undeveloped	Previously Mitigated
CA-SDI-8641	Lithic Scatter	Tested 1988 mitigated not currently developed	Previously Mitigated
CA-SDI-8642	Lithic Scatter	Tested 1988 mitigated not currently developed	Previously Mitigated
CA-SDI-8643	Lithic Scatter	Tested 1988 mitigated not currently developed	Previously Mitigated
CA-SDI-8644	Lithic Scatter	Tested 1988 mitigated not currently developed	Previously Mitigated
CA-SDI-8645	Lithic Scatter	Tested 1988 mitigated not currently developed	Previously Mitigated
CA-SDI-8750	Lithic Scatter	No record of testing, currently undeveloped	Undetermined
CA-SDI-8751	Lithic Scatter	No testing recorded, currently undeveloped	Undetermined

TABLE 5.5-2
RECORDED SITES WITHIN THE OTAY MESA COMMUNITY PLAN AREA
(continued)

Site #	Site Type	Status	Significance
CA-SDI-8752	Lithic Scatter	No testing recorded, currently undeveloped	Undetermined
CA-SDI-8753	Lithic Scatter	No testing recorded, currently undeveloped	Undetermined
CA-SDI-9098	Habitation	Data recovery 1983	Previously Mitigated
CA-SDI-9099	Artifact Scatter	No recorded work, area developed	Undetermined
CA-SDI-9100	Lithic Scatter/Historic	No testing recorded, currently undeveloped	Undetermined
CA-SDI-9541	Temporary camp	No recorded work, currently undeveloped	Undetermined
CA-SDI-9771	Lithic Scatter	Combined with several sites under CA-SDI-12337, tested various times	Not significant

NRHP = National Register of Historic Places.

d. Religious or Sacred Uses

Senate Bill 18 (SB 18), which was signed into law in 2004, requires cities and counties to consult Native American tribes prior to adoption or amendment of general plans or specific plans, including modifications to open space. This legislation became effective in March 2005. In response to a request by RECON in November 2006, the Native American Heritage Commission (NAHC) verified that there is no finding of a sacred site or burial within the CPU area. In addition, the City of San Diego submitted a request for consultation to the NAHC in accordance with SB 18. Letters were distributed to all tribal groups identified by the NAHC with a potential interest in the CPU on February 26, 2007. The City did not receive any requests for consultation from any of the tribal groups or individuals identified by the NAHC within the 90 day period.

e. Human Remains

There are no known human remains in the CPU area. There is a potential, however, for human remains to exist below the ground surface within the CPU area.

5.5.1.3 Regulatory Setting/Historic Preservation Plans, Policies and Standards

a. Federal

National Register of Historic Places

Federal criteria are those used to determine eligibility for the NRHP. The NRHP was established by the National Historic Preservation Act (1966). The NRHP is the official lists of sites, buildings, structures, districts, and objects significant in American history, architecture, archaeology, engineering, and culture. The NRHP is administered by the National Park Service. Nominations to the NRHP may come from the various State Historic Preservation Offices, Tribal Historic Preservation Offices, local governments, and from private individuals and organizations. The NRHP criteria state that the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons important in our past;

C. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values; or

that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Certain properties are usually not considered for eligibility for the NRHP. These include ordinary cemeteries, birthplaces or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved or reconstructed, properties primarily commemorative in nature, or properties that have become significant within the last 50 years. These types of properties can qualify if they are an integral part of a district that does meet the criteria, or if they fall within certain specific categories relating to architecture or association with historically significant people or events. The vast majority of archaeological sites that qualify for listing do so under criterion D, research potential.

Native American Involvement

Native American involvement in the development review process is addressed when an undertaking under federal law triggers environmental review pursuant to the National Environmental Policy Act (NEPA). This often occurs when a project in funded by a federal agency or is being proposed by a federal agency and requires review under Section 106 of the National Historic Preservation Act. The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) ensures that Native American human remains and cultural items are treated with respect and dignity during all phases of project evaluation.

b. State

California Register of Historic Resources/California Environmental Quality Act

Similar to the NRHP, the California Register of Historic Resources (CRHR) program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies resources for planning purposes; determines eligibility of state historic grant funding; and provides certain protections under CEQA. State criteria are those listed in CEQA and used to determine whether an historic resource qualifies for the CRHR. A resource may be listed in the CRHR if it is significant at the federal, state, or local level under one or more of the four criteria listed below.

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States.
2. Is associated with the lives of persons important to the nation or to California's past.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history of the state or nation.

CEQA was amended in 1998 to define "historical resources" as a resource listed in or determined eligible for listing on the CRHR, a resource included in a local register of historical resources or identified as significant in a historical resource survey that meets certain requirements, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant.

For the purposes of CEQA, a significant historical resource is one which qualifies for the CRHR or is listed in a local historic register or deemed significant in a historical resource survey, as provided under Section 5024.1(g) of the Public Resources Code. A resource that is not listed in, or determined to be eligible for listing in, the CRHR, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant for purposes of CEQA (Section 15064.5 and CEQA Statutes Section 21083.2).

The City's determination of significance of impacts on historical and unique archaeological resources is based on the criteria found in Section 15064.5 of the State CEQA Guidelines. Archaeological resources are considered "historical resources" for the purposes of CEQA. Most archaeological sites which qualify for the CRHR do so under criterion 4 (i.e., research potential).

Since resources that are not listed or determined eligible for the state or local registers may still be historically significant, their significance would be determined if they are affected by a development proposals. The significance of a historical resource under criterion 4 rests on its ability to address important research questions.

Native American Involvement

Native American involvement in the development review process is addressed by several state laws. The most notable of the state laws is SB 18 which includes detailed requirements for local agencies to consult with identified California Native American Tribes early in the planning and/or development process. The California Native American Graves Protection and Repatriation Act (2001), like the federal act ensures that Native American human remains and cultural items are treated with respect and dignity during all phases of the archaeological evaluation process in accordance with CEQA and any applicable local regulations.

c. Local

Historical Resources Regulations

The Historical Resources Regulations (HRR) are part of the San Diego Municipal Code (Chapter 14, Article 3, Division 2: Purpose of HRR or Sections 143.0201-143.0280). The HRR have been developed to implement applicable local, state, and federal policies and mandates. Included in these are the General Plan, CEQA, and Section 106 of the National Historic Preservation Act (NHPA) of 1966.

Part of the HRR consists of a Development Review Process for all projects in the City. This review process is composed of two parts: implementation of the HRR and a determination of impacts and mitigation under CEQA. The implementation of the HRR begins with the determination of the need for a survey of the project site. The need for a survey is based on historical resource information and the date and results of any previous surveys of a project site. Surveys are required if more than five years have elapsed since the last survey and the potential for resources exists. A historic property (built environment) survey is required if the structure/site is over 45 years old and appears to have integrity of setting, design, materials, workmanship, feeling, and association. Surveys must be conducted according to criteria in the Historical Resource Guidelines (HRG). If the survey results are negative, the review process is complete and no mitigation is required.

Historical resources, in the HRR context, include

> . . . site improvements, buildings, structures, historic districts, signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the city.

These include structures, buildings, archaeological sites, objects, districts, or landscapes having physical evidence of human activities. These are usually over 45 years old, and they may have been altered or still be in use (City of San Diego 2001).

In addition to direct and indirect impacts, cumulative impacts must also be addressed during the CEQA review process. Cumulative impacts are a result of individually minor but collectively significant projects occurring over a period of time. Data recovery may be considered a cumulative impact due to the loss of a portion of the resource data base. Cumulative impacts also occur in districts when several minor changes to contributing properties, their setting, or landscaping eventually results in a significant loss of integrity (City of San Diego 2001).

Historical Resources Guidelines

The City's Historical Resources Guidelines amended in April 2001 are designed to implement the Historical Resources Regulations contained in Chapter 14, Division 3, Article 2 of the LDC. If any resources have been recorded on the property, those resources must be evaluated for significance/importance in accordance with criteria listed in the Historical Resources Guidelines. Resources determined to be significant/important must either be avoided or a data recovery program for important archaeological sites must be developed and approved prior to permit issuance in order to assure adequate mitigation for the recovery of cultural and scientific information related to the resource's significance/importance.

General Plan Historic Preservation Element

The Historic Preservation Element of the General Plan sets a series of goals for the City for the preservation of historic resources. The first of these goals is to preserve significant historical resources. These goals would be realized through implementation of policies that encourage the identification and preservation of historical resources. Specific policies are shown in Table 5.5-3.

TABLE 5.5-3
GENERAL PLAN HISTORIC PRESERVATION ELEMENT POLICIES

Policy	Description
HP-A.1	Strengthen historic preservation planning.
HP-A.2	Fully integrate the consideration of historical and cultural resources in the larger land use planning process.
HP-A.3	Foster government to government relationships with the Kumeyaay/ Diegueño tribes of San Diego.
HP-A.4	Actively pursue a program to identify, document, and evaluate the historical and cultural resources in the City of San Diego.
HP-A.5	Designate and preserve significant historical and cultural resources for current and future generations.
HP-B.1	Foster greater public participation and education in historical and cultural resources.
HP-B.2	Promote the maintenance, restoration, and rehabilitation of historical resources through a variety of financial and development incentives. Continue to use existing programs and develop new approaches as needed. Encourage continued private ownership and utilization of historic structures through a variety of incentives.
HP-B.3	Develop a historic preservation sponsorship program.
HP-B.4	Increase opportunities for cultural heritage tourism. Additional discussion and policies can be found in the Economic Prosperity Element, Section I.

SOURCE: City of San Diego General Plan 2008.

5.5.2 Significance Determination Thresholds

Historical resources significance determination, pursuant to the City of San Diego's Significance Determination Thresholds, consists first of determining the sensitivity or significance of identified historical resources and, secondly, determining direct and indirect impacts that would result from project implementation.

Based on the City's Significance Determination Thresholds, impacts related to historical resources would be significant if the CPU would:

1. Result in the alteration, including the adverse physical or aesthetic effects and/or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, or object or site;

2. Result in any impact to existing religious or sacred uses within the potential impact area; or

3. Result in the disturbance of any human remains, including those interred outside of formal cemeteries.

5.5.3 Issue 1: Prehistoric or Historical Impacts

Would the CPU result in the alteration or destruction of a prehistoric or historical archaeological site? Would the CPU result in any adverse physical or aesthetic effects on a prehistoric or historic building, structure, object, or site?

5.5.3.1 Impacts

The Historic Preservation Element of the CPU includes the following specific policies addressing the history and historical resources unique to the CPU area in order to encourage appreciation of the community's history and culture.

10.1-1 Require archaeological surveys and consultation with interested Native Americans as part of future development within Otay Mesa.

10.1-2 Consider eligible for listing on the City's Historical Resources Register any significant archaeological or Native American cultural sites that may be identified as part of future development within Otay Mesa.

10.1-3 Consider eligible for listing on the City's Historical Resources Register any structure or site from the agricultural era that may be discovered as part of future development within Otay Mesa.

10.1-4 Consider eligible for listing on the City's Historical Resources Register any buildings associated with early military aviation activities of the community that may be identified as part of future development within Otay Mesa.

10.2-1 Develop an interpretive program of Otay Mesa's history.

a. Identify designated historical resources, including the site of the Alta School and the Brown Field Historical District, with signs and markers.

b. Prepare a public display or brochure to highlight the agricultural and aviation history of Otay Mesa.

c. Specific plans for the village areas should include an interpretive program that highlights the history of Otay Mesa and any specific resources identified within the specific planning area.

10.2-2 Develop new incentives focused on the protection of Native American and archaeological resources, such as reduced permitting costs, increased floor area ratio, or larger building envelop when preserving significant cultural resources.

These policies, along with the General Plan policies, provide a comprehensive historic preservation strategy. The two overarching goals in the Historic Preservation Element are to preserve significant historical resources and to encourage educational opportunities and incentives to support historic preservation.

a. Archaeological Resources

Of the 262 recorded prehistoric and historic sites in the CPU area there are 180 remaining undeveloped or partially developed parcels, 10 of which have been evaluated and determined significant under CEQA or City guidelines. Based on the development footprint of the CPU, future development would have the potential to significantly impact all or a portion of 61 of these sites and any additional unrecorded sites.

Impacts from future development on historical resources in the CPU area would occur at the project level. Any grading, excavation, and other ground disturbing activities associated with future development implemented in accordance with the CPU that would affect significant archaeological sites or TCPs would represent a significant impact to historical resources. It should be noted however, that future development in areas designated for commercial and industrial uses on properties that have not been previously graded, or have been graded but have not otherwise developed, would be subject to review in accordance with the supplemental regulations for CPIOZ Type A (ministerial). For these project types that are consistent with the OMCP, base zone regulations and the supplemental regulations for CPIOZ Type A and can demonstrate that are no archaeological resources present on the project site; the project can be processed ministerially and would not be subject to further environmental review under CEQA. This requires submittal of an Archaeological Survey

prepared by a qualified archaeologist in accordance with the City's Historical Resources Guidelines. Development proposals that do not comply with the CPIOZ Type A supplemental regulations would be subject to discretionary review in accordance with CPIOZ Type B and the Mitigation Framework for Historical Resources.

b. Historic Buildings, Structures, and Objects

Seven of the recorded structures/sites within the CPU have been designated as Historical Landmarks by the San Diego HRB. Impacts associated with historic buildings, structures, and objects would be the same as those identified for archaeological resources above. Impacts to resources associated with the built environment would include substantial alteration, relocation, or demolition of historic buildings, structures, objects, landscapes, and sites. Impacts from future development on the built environment would occur at the project-level. Any alteration, relocation, or demolition associated with future development that would affect historic buildings, structures, objects, landscapes, and sites would represent a significant impact to historical resources.

5.5.3.2 Significance of Impacts

HIST-1/HIST-2: Due to the number and density of prehistoric and historical resources in the CPU area, future development has the potential to result in the loss of resources, which would be a significant impact at the program level.

5.5.3.3 Mitigation Framework

Future commercial, business park and industrial development project types that are consistent with the OMCP, base zone regulations and the supplemental regulations for CPIOZ Type A and can demonstrate that there are no archaeological resources present on the project site; the project can be processed ministerially and would not be subject to further environmental review under CEQA. Development proposals that do not comply with the CPIOZ Type A supplemental regulations shall be subject to discretionary review in accordance with CPIOZ Type B and the Mitigation Framework for Historical Archaeological Resources further detailed below.

a. Archaeological Resources

HIST-1: Prior to issuance of any permit for a future development project implemented in accordance with the CPU area that could directly affect an archaeological resource, the City shall require the following steps be taken to determine: (1) the presence of archaeological resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, residential and commercial properties, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socio-economic and ethnic backgrounds.

Sites may also include resources associated with prehistoric Native American activities.

INITIAL DETERMINATION

The environmental analyst will determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g. Archaeological Sensitivity Maps, the Archaeological Map Book, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and conducting a site visit. If there is any evidence that the site contains archaeological resources, then a historic evaluation consistent with the City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City Guidelines.

STEP 1:

Based on the results of the Initial Determination, if there is evidence that the site contains historical resources, preparation of a historic evaluation is required. The evaluation report would generally include background research, field survey, archeological testing and analysis. Before actual field reconnaissance would occur, background research is required which includes a record search at the SCIC at San Diego State University and the San Diego Museum of Man. A review of the Sacred Lands File maintained by the NAHC must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeology Center and any tribal repositories or museums.

In addition to the record searches mentioned above, background information may include, but is not limited to: examining primary sources of historical information (e.g., deeds and wills), secondary sources (e.g., local histories and genealogies), Sanborn Fire Maps, and historic cartographic and aerial photograph sources; reviewing previous archeological research in similar areas, models that predict site distribution, and archeological, architectural, and historical site inventory files; and conducting informant interviews. The results of the background information would be included in the evaluation report.

Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet the standards outlined in the City Guidelines. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance, including, but not limited to, remote sensing, ground penetrating radar, and other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or traditional cultural properties. If through background research and field surveys historical resources are identified, then an evaluation of significance must be performed by a qualified archaeologist.

STEP 2:

Once a historical resource has been identified, a significance determination must be made. It should be noted that tribal representatives and/or Native American monitors will be involved in making recommendations regarding the significance of prehistoric archaeological sites during this phase of the process. The testing program may require reevaluation of the proposed project in consultation with the Native American representative which could result in a combination of project redesign to avoid and/or preserve significant resources as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). An archaeological testing program will be required which includes evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies, including surface and subsurface investigations, can be found in the City Guidelines.

The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the Area of Potential Effect, the site may be eligible for local designation. At this time, the final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation (DPR) site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicates there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.

STEP 3:

Preferred mitigation for historical resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA, Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to draft CEQA document distribution. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.

A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground-disturbing activities, whenever a Native American Traditional Cultural Property or any archaeological site located on City property or within the Area of Potential Effect of a City project would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of Public Resources Code Section 5097 must be followed. These provisions are outlined in the Mitigation Monitoring and Reporting Program (MMRP) included in the environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.

STEP 4:

Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources, such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation.

Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g. collected materials and the associated records); in the case of potentially significant impacts to historical resources, to recommend appropriate mitigation measures that would reduce the impacts to below a level of significance; and to document the results of mitigation and monitoring programs, if required.

Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Guidelines), which will be used by Environmental Analysis Section staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover) along with historical resources reports for archaeological sites and traditional cultural properties containing the confidential resource maps and records search information gathered during the background study. In addition, a Collections Management Plan shall be prepared for projects which result in a substantial collection of artifacts and must address the management and research goals of the project and the types of materials to be collected and curated based on a sampling strategy that is acceptable to

the City. Appendix D (Historical Resources Report Form) may be used when no archaeological resources were identified within the project boundaries.

STEP 5:

For Archaeological Resources: All cultural materials, including original maps, field notes, non-burial related artifacts, catalog information, and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historic deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project MMRP. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 and California Native American Graves Protection and Repatriation Act of 2001) and federal (i.e., Native American Graves Protection and Repatriation Act) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.

Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 Code of Federal Regulations 79 of the Federal Register. Additional information regarding curation is provided in Section II of the Guidelines.

b. Historic Buildings, Structures, and Objects

HIST-2: Prior to issuance of any permit for a future development project implemented in accordance with the CPU that would directly or indirectly affect a building/structure in excess of 45 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the Guidelines.

Preferred mitigation for historic buildings or structures shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures shall include, but are not limited to:

a. Preparing a historic resource management plan;

b. Designing new construction which is compatible in size, scale, materials, color and workmanship to the historic resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric);

c. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;

d. Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource;

e. Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning; and

f. Removing industrial pollution at the source of production.

Specific types of historical resource reports, outlined in Section III of the HRG, are required to document the methods to be used to determine the presence or absence of historical resources, to identify potential impacts from a proposed project, and to evaluate the significance of any historical resources identified. If potentially significant impacts to an identified historical resource are identified these reports will also recommend appropriate mitigation to reduce the impacts to below a level of significance. If required, mitigation programs can also be included in the report.

5.5.3.4 Significance after Mitigation

Future development implemented in accordance with the CPU and the supplemental development regulations for CPIOZ Type A (ministerial), would not be required to incorporate the Mitigation Framework measures and alternatives adopted in conjunction with the certification of this PEIR. However, for future development subject to review under CPIOZ Type B (discretionary), implementation of the Mitigation Framework measures adopted in conjunction with the certification of this PEIR would be required. Therefore, the program-level impact related to prehistoric or historical archaeological sites would be reduced to below a level of significance.

5.5.4 Issue 2: Religious or Sacred Uses

Would the CPU result in any impact to existing religious or sacred uses within the CPU area?

5.5.4.1 Impacts

The impact analysis for Issue 2 would be the same as outlined above for Issue 1, if religious or sacred places cannot be avoided. Spirituality of place is often impossible to define because it transcends material remains, which archaeologists can recover during significance testing or data recovery programs. Sever the connection that someone has to a religious or sacred place and you harm them in ways that cannot be mitigated. Therefore, significant, irrevocable impacts could occur through insensitive planning and project implementation. Impacts on sacred or religious places could result during construction activities associated with implementation of the CPU. Therefore, any impacts on historical resources associated with future Reach Recommendation projects would be considered significant.

5.5.4.2 Significance of Impacts

Impacts to known resources and those not yet found and formally recorded, could occur anywhere within the CPU. Future grading of original in situ soils could also expose buried historical archaeological resources and features including sacred sites. Potential impacts to historical resources associated with construction of future projects implemented in accordance with the CPU, would be considered significant (refer to Issue 1).

5.5.4.3 Mitigation Framework

The Mitigation Framework religious or sacred uses (Issue 2) would be the same as outlined for Issue 1 - Archaeological Resources. Please refer to Mitigation Framework HIST-1.

5.5.4.4 Significance After Mitigation

Future development implemented in accordance with the CPU and the supplemental development regulations for CPIOZ Type A (ministerial) would not be required to incorporate the Mitigation Framework measures and alternatives adopted in conjunction with the certification of this PEIR. However, for future development subject to review under CPIOZ Type B (discretionary), implementation of the Mitigation Framework measures adopted in conjunction with the certification of this PEIR would be required as outlined in HIST-1 above. Therefore, the program-level impact related to religious or sacred uses would be reduced to below a level of significance.

5.5.5 Issue 3: Human Remains

Would the CPU result in the disturbance of any human remains, including those interred outside of formal cemeteries?

5.5.5.1 Impacts

The impact analysis for Issue 3 would be the same as outlined above for Issue 1 if impacts on human remains cannot be avoided. Native American remains, where tribal spiritual beliefs hold sacred that their ancestor's places of rest should not be disturbed. It is unavoidable in certain circumstances when human remains are discovered during construction. Impact thresholds for human remains depend on whether sites or places containing human remains occur within the potential impact area of a project. Although Native American human remains have not been identified in the CPU area, there is a potential for human remains to be encountered during future construction activities associated with implementation of the CPU. All future development implemented in accordance with the CPU would be subject to the development review process described in Section 5.5.1.3 to ensure compliance with federal, state and local criteria for the appropriate treatment of human remains. Any impacts would therefore be considered significant.

While it is preferable in all cases to avoid impacting human remains, this is not always possible given the uncertainties of late discoveries during construction. In the vicinity of a known cemetery or a prehistoric archaeological site suspected to be over 1,500 years old, interments are possible. Background research could help identify possible burial locations related to historic era properties. Forensic dogs or other nondestructive ground-penetrating techniques could help identify subsurface anomalies that might be related to the presence of inhumations. Forensic dogs have also been useful on sites where scattered cremation remains are present. When data recovery of an archaeological site is required, all possible pre-excavation planning would be implemented to guard against the accidental discovery of human remains. This would also apply to subsequent destruction of an archaeological site during project implementation because archaeological data recovery can never fully recover all the data from a site.

The discovery of human remains also demands that certain laws and protocols be followed before proceeding with any action that might disturb the remains further. If human remains are discovered, then the provisions set forth in California Public Resources Code Section 5097.98 and State Health and Safety Code Section 7050.5 would be implemented in consultation with the assigned Most Likely Descendant as identified by the NAHC.

5.5.5.2 Significance of Impacts

Impacts to known resources and those not yet found and formally recorded could occur anywhere within the CPU. Future grading of original in situ soils could also expose buried human remains. Potential impacts to historical resources associated with construction of projects implemented in accordance with CPU would be considered significant (refer to Issue 1).

5.5.5.3 Mitigation Framework

The Mitigation Framework for human remains (Issue 3) would be the same as outlined for Issue 1 - Archaeological Resources. Please refer to Mitigation Framework HIST-1.

5.5.5.4 Significance after Mitigation

Future development implemented in accordance with the CPU and the supplemental development regulations for CPIOZ Type A (ministerial) would not be required to incorporate the Mitigation Framework measures and alternatives adopted in conjunction with the certification of this PEIR. However, for future development subject to review under CPIOZ Type B (discretionary), implementation of the Mitigation Framework measures adopted in conjunction with the certification of this PEIR would be required as outlined in HIST-1 above. Therefore, the program-level impact related to human remains would be reduced to below a level of significance.

THIS PAGE IS INTENTIONALLY BLANK.

5.6 Human Health/Public Safety/Hazardous Materials

This section is based on the Updated Hazardous Materials Technical Study (HMTS) prepared by Geocon (2012) to address the potential for impacts from the presence of hazardous materials/wastes on or within the vicinity of the CPU area and to discuss a mitigation framework to be implemented to reduce or eliminate the potential impacts. The study includes a review of regulatory agency databases, records review, limited visual site reconnaissance, and review of site history to identify potential environmental concerns and is included as Appendix F.

5.6.1 Existing Conditions

Hazardous materials are used in Otay Mesa for a variety of purposes including maintenance and operations at airfields, manufacturing, service industries, various small businesses, agriculture, medical uses, schools, and households. Many chemicals used in household cleaning, construction, dry cleaning, film processing, landscaping, and automotive maintenance and repair are considered hazardous. Businesses that handle/generate hazardous materials within the City are monitored by the U.S. EPA. Small quantity hazardous waste generators include facilities such as automotive repair, dry cleaners, and medical offices.

5.6.1.1 Federal, State, and Local Regulations

Numerous federal, state, and local laws and regulations pertaining to hazardous materials have been developed with the intent of protecting public health, the environment, surface water, and groundwater resources. Over the years, the laws and regulations have evolved to deal with different aspects of the handling, treatment, storage, and disposal of hazardous substances. Relevant laws and regulations include:

- 1972 Federal Water Pollution Control Act (also referenced as the Clean Water Act [CWA]). This act established a federal framework for the regulation of water quality.

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, also known as “Superfund,” and the Superfund Amendments and Reauthorization Act (SARA) of 1986 (amended CERCLA, SARA Title III). CERCLA, SARA Title III provide a federal framework for setting priorities for cleanup of hazardous substances releases to air, water, and land. This framework provides for the regulation of the cleanup process, cost recovery, response planning, and communication standards.

- Federal Resource Conservation and Recovery Act (RCRA) of 1976. This act established the authority of the U.S. EPA to develop regulations to track and control hazardous substances from their production, through their use, to their disposal.

- Title 40 CFR, Part 257, establishes criteria for the classification of solid waste disposal facilities and practices (Sections 257.1 to 257.30). The U.S. EPA has the authority under RCRA to authorize states to implement RCRA, and California is a RCRA authorized state.

- Title 40 CCR, Part 290 establishes technical standards and corrective action requirements for owners and operators of Underground Storage Tanks (USTs) under RCRA.

- Title 8 CCR, Industrial Relations, establishes laws regulating physical and chemical hazards in the work place. The California Division of Occupational Safety enforces these standards, including those related to asbestos-containing material, liquefied petroleum gas, storage tanks, and boilers.

- Title 23 CCR, Part 2620 regulates underground storage tanks with the intent to protect waters from contamination. This regulation establishes procedures for both new and existing tanks, as well as requirements for unauthorized release reporting, and for repair, upgrade, and closure of tanks.

- Water Quality Control Plan ("Basin Plan") for the San Diego region establishes policies and requirements for the protection of groundwater and surface water quality in the region. The Basin Plan also summarizes drinking water standards as specified in the California Department of Health Services, the California Inland Surface Waters Plan (State Water Resources Control Board [SWRCB] 1991), and Title 40 CFR Part 131, which establishes federal water quality standards under the CWA.

- San Diego County Area Plan (Area Plan), established by the County of San Diego Department of Environmental Health (DEH), Hazardous Materials Division, for the emergency response to a release or threatened release of a hazardous material within the County. The Hazardous Materials Program and Response Plan contained in the Area Plan serves the Otay Mesa area. As part of the Area Plan, the federal Risk Management Plan (RMP), is incorporated and modified by the State of California Accidental Release Prevention (CalARP) program, whose goal is to make all facilities that handle regulated substances free of catastrophic incidents.

- Hazardous Materials Transportation Act (49 CFR Parts 101, 106, and 107) is enforced by Caltrans and regulates hazardous materials transport. Unlicensed residents and businesses are not permitted to transport hazardous waste over 5.0

gallons or more than 50.0 pounds total per vehicle per trip, as enforced by the California Highway Patrol.

- The County has prepared a San Diego County Operational Area Emergency Plan and a Multi-jurisdictional Hazard Mitigation Plan. These documents provide guidance on emergency responses to a release or potential release of a hazardous substance, and identify risks for potential releases throughout the County.

- The City's Local Enforcement Agency (LEA) regulates solid waste within the City, including waste collection/disposal, illegal solid waste dumping, and hazardous solid waste sites requiring remediation.

- The City of San Diego Municipal Code includes general hazardous materials regulations (Sections 42.0801, 42.0901, and 54.0701) as well as regulations regarding specific hazardous materials such as explosives (Section 55.3301).

- To minimize fire risk, the City of San Diego Municipal Code includes regulations pertaining to brush management (Section 142.0412), construction materials for development near open space (Chapter 14, Article 5), and adequate fire flow.

Regulatory Listings

Regulatory agency records pertaining to the CPU area were reviewed by GEOCON. A search of federal, state, and local databases for the CPU area was also performed. A number of facilities within the CPU area appear on several regulatory listings. A summary of the information obtained from the various lists is presented as follows:

No Further Remedial Action Planned Listings

The No Further Remedial Action Planned (NFRAP) list is maintained by the U.S. EPA and includes archive-designated CERCLA sites where assessment has reportedly been completed and it has been determined that no further steps will be taken to include the site on the National Priority List (NPL) and no further remediation is required. The Brown Field Hazardous Waste Site (5675 Otay Valley Road) is the only property within the CPU area that appears on the NFRAP list.

Spills, Leaks, Investigations, and Cleanups Listings

Ten facilities located within the CPU area are referenced on the Spills, Leaks, Investigations, and Cleanups (SLIC) database. Off-site properties/facilities within ⅛-mile of the CPU area were not referenced on the SLIC database. A list of the referenced facilities is provided below.

- Brown Field, 1424 Continental Street
- Former U.S. Border Patrol Pistol Range, North of Pogo Row

- Former Rohr Engine Facility, 1500 Heritage Road
- Auto Recycling, 980 Otay Valley Road
- Kaiser Foundation, 4650 Palm Avenue
- OLA Imports and Exports, 935 Heritage Road
- Tripp Salvage Landfill (Sesi Property and Barnhart and Dantzler Property), west of northern termination of Cactus Road
- Martinez Ranch, 2160 Cactus Road
- Former Martinez Outdoor Storage, 2770 Martinez Ranch Road

Emergency Response Notification System and Hazardous Material Incident Report System Listings

The Emergency Response Notification System (ERNS) and the Hazardous Material Incident Report System (HMIRS) databases were reviewed for facilities with reported hazardous substance release incidents. The ERNS database is a national database used to collect information on reported releases of oil and hazardous substances. Fifteen facilities located within the boundaries of the CPU area are listed on one or both of these databases. Off-site facilities within ⅛ mile of the CPU area were not referenced on either database. Information in the database listings for the 15 facilities within the CPU area indicates that the releases generally consisted of surficial spills of fuel or temporary exposure of workers or personnel to noxious fumes that were mitigated by or under the oversight of the local fire department or office of emergency services. In addition, these 15 facilities do not appear on any other database that reports unauthorized releases of hazardous substances. Based on this information and the nature of the releases, there is low likelihood that these facilities present an environmental concern to the CPU area.

Solid Waste Facilities/Landfill Listings

The Solid Waste Facilities/Landfill Sites (SWF/LF) database is maintained by the California Department of Resources Recycling and Recovery (CalRecycle) and lists solid waste facilities, operations, and disposal facilities throughout the state of California. The 2012 HMTS included a review of solid waste facilities within the CPU area. One waste facility within the boundaries of the CPU area is listed on this database, Tripp Salvage Landfill. This landfill is comprised of two adjacent properties located west of the northern termination of Cactus Road, the Barnhart and Dantzler Property and the Sesi Property. One waste facility was also identified outside the CPU area, the Shinohara II Burn Site located on the south side of the Otay River.

The following facilities were identified in the 2012 HMTS as solid waste disposal sites, but were not referenced on the SWF/LF listings or on databases that report releases of hazardous materials:

- Former INS Shooting Range;
- Organic Recycling West, 1202 La Media Road;
- Dillons Trail Site;
- Martinez Ranch Canyon Fill; and
- San Ysidro Burn Site.

Underground Storage Tank Listings

Eighteen facilities within the CPU area and one facility outside the CPU area are referenced as containing either registered USTs (UST database), active or inactive USTs (SWEEPS database), or historical USTs (HIST UST database). Five of the 19 listings are associated with facilities within the CPU area that are also listed on the Leaking Underground Storage Tank (LUST) database. These listings are identified as:

- Brown Field, 1424 Continental Street;
- Piper Ranch;
- Former Rohr Engine Facility, 1500 Heritage Road;
- Arco Service Station, 2510 Otay Center Drive; and
- Air Liquide Industrial, 9955 Via De La Amistad.

The referenced facility located outside the CPU area is Former Red Cab, 803 East San Ysidro Boulevard, which is also listed on the LUST database. However, based on information provided in the LUST database, it is unlikely that operations at this facility have negatively impacted the CPU area. The remaining 13 listings are not on databases that report unauthorized releases of hazardous substances. As such, there is a low likelihood that these 13 listings present an environmental concern.

EnviroStor Listings

One facility was identified on the Department of Toxic Substances Control (DTSC) EnviroStor database: Honeywell, Inc., 2055 Dublin Drive. This facility is reportedly under DTSC oversight for permitted hazardous waste disposal. References regarding unauthorized releases of hazardous substances were not noted in EnviroStor. In addition, this facility is not listed on databases that report unauthorized releases of hazardous substances or petroleum. As such, there is a low likelihood that this facility presents an environmental concern.

LUST and CORTESE Listings

The LUST (Leaking Underground Storage Tank) list includes database information maintained by the SWRCB, as well as information maintained by the DEH. The SWRCB database includes sites with confirmed or unconfirmed leaking USTs. Four leaking UST facilities are located within the CPU area on the LUST and/or CORTESE databases. The four facilities are Brown Field (1424 Continental Street), Former Rohr Engine Facility (1500 Heritage Road), Arco Service Station (2510 Otay Center Road), and Air Liquide Industrial (9955 Via de la Amistad). Two facilities outside the CPU area within 1/8-mile of the CPU area are also referenced on the LUST and/or CORTESE databases. These two facilities are City of San Diego General Services Yard, 4515 Otay Mesa Road (adjacent to the west of the CPU area) and Former Red Cab, 803 East San Ysidro Boulevard (approximately 530 feet west of the CPU area).

Orphan Summary

An Orphan Summary was also included as part of the HMTS database review. The Orphan Summary identifies properties/facilities that have incomplete address information and could not be specifically plotted. A total of 290 properties/facilities were listed in the Orphan Summary; however, in some cases, multiple records were listed for the same property/facility. Based on the distances of these properties/facilities from the CPU area and the nature of the databases on which the listings appear, 283 of the 290 records do not appear to present an environmental concern.

The remaining seven listings are associated with properties/facilities interpreted to be located within or in proximity to the boundaries of the CPU area and referenced on databases that report unauthorized releases of hazardous substances, petroleum, or waste disposal facilities. Information regarding these properties/facilities is provided below.

- Otay Mesa Road Widening Project;
- Piper Ranch;
- Former Dennery Ranch;
- Shinohara I Burn Site;
- Southbay Operations Center;
- Britannia Boulevard Property; and
- South Bay Burn Site.

5.6.1.2 Sites of Potential Environmental Concern

The 2012 HMTS identified 23 sites of potential environmental concern located within the CPU area. The 23 sites are described specifically in Table 5.6-1. These sites were ranked

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Otay Mesa Widening Project	Adjacent to north and south of Otay Mesa Road	3	A 1996 site assessment identified petroleum hydrocarbon and pesticide impacted soil adjacent to Otay Mesa Road in the area of the widening project. Although the soil generated during the widening project was determined not to contain detectable concentrations of these compounds, the potential exists for impacted soil to remain in place.	No mitigation measures are anticipated to be required. However, if additional grading is conducted adjacent to Otay Mesa Road in the area of the former widening project, observations should be made for the presence of impacted soil. If encountered, the impacted soil should be segregated and characterized for potential reuse or disposal options.
Brown Field Operations Area	1424 Continental St.	1	An active Leaking Underground Storage Tank (LUST) case is associated with this facility for petroleum hydrocarbon impacts to soil and groundwater. Releases associated with an additional 24 LUST or spill cases have reportedly resulted in an estimated 111,500 cubic yards of hydrocarbon-impacted soil remaining in-place at the facility.	High likelihood that additional mitigation measures will be required. Soil and/or groundwater sampling would be required to assess the extent of the existing contamination prior to redevelopment of this area. Remediation, consisting of excavation and disposal of contaminated soil or in-situ treatment of contaminated soil, may be required to mitigate potential health risks.
San Diego Space Surveillance Station (Former U.S. Border Patrol Pistol Range)	North of Pogo Row	1	Assessment in 2000 found that at least 3,500 cubic meters of soil at this former facility contained high concentrations of lead, and other metals. The western portion of this former facility was subsequently redeveloped with a U.S. Border Patrol maintenance station and the eastern portion is currently occupied by the San Diego Space Surveillance Station (SDSSS). A workplan was prepared in 2012 to conduct an investigation of soil and debris in the area of a former small arms range and skeet range located on the SDSSS facility. In addition, the workplan proposes the excavation and disposal of lead and polycyclic aromatic hydrocarbon impacted soil previously identified at both of these former ranges.	High likelihood that additional mitigation measures will be required including assessment, excavation, and disposal of impacted soil and debris.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Former INS Shooting Range (Currently Vacant)	Northeast of eastern termination of Pogo Row	2	In 1987, fill material containing burn ash and sand blast grit was deposited at the INS Shooting Range to create safety berms. Upon discovery of the contaminated material, remediation activities were conducted, including excavation of contaminated soil. Residual lead-impacted soil remains on-site that capped with concrete. Facility was issued a no further action designation in 2002.	Low likelihood that additional mitigation measures will be required provided the concrete cap remains in-place. Should future redevelopment include removal or disturbance of the cap, an environmental consultant should be retained and the City LEA contacted.
Former Organic Recycling West (Currently Vacant)	1202 La Media Road	3	This facility is a composting facility that only accepts "green" and "woody" materials. During a July 2006 Local Enforcement Agency (LEA) inspection, spills were noted in the vicinity of vehicles and batteries west of vehicular maintenance area. A County of San Diego Department of Environmental Health (DEH) release case was not opened as a result of the spills, indicating the spills were considered minor.	No mitigation measures are anticipated to be required. Impacted soil, if encountered during future redevelopment, should be segregated and characterized for potential reuse or disposal options.
Piper Ranch (Currently a Business Park)	West of Piper Ranch Road	3	Waste oil and pesticide-contaminated soil excavated and removed in 1988. Gasoline release from a underground storage tank (UST) removed in 1988 resulted in contamination of two cubic yards of soil. DEH closed the UST case due to limited extent of contamination. Subsequent sampling of the property in 1988, 1989, and 1994 indicated various pesticides were detected but concentrations were below less than regulatory screening levels. The property is currently improved with several commercial/light-industrial developments.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.
Former Dennery Ranch (Currently an Apartment Complex)	North of Intersection of Dennery Road and Red Fin Lane	2	Approximately 5,000 cubic yards of burn ash deposits, originating from the Shinohara II Burn Site, are present over an approximately 0.5-acre area in the northwestern portion of this property. In 2009, the City Local Enforcement Agency approved a plan to construct a 2-foot-thick vegetative soil cap over the burn ash deposits. Property was redeveloped with single-family homes in 2007-2008.[1]	Low likelihood that additional mitigation measures will be required provided the vegetative soil cap remains in-place. Should future redevelopment include removal or disturbance of the cap, an environmental consultant should be retained and the City LEA contacted.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Shinohara I Burn Site	North of Otay River (City of Chula Vista)[1]	2	Approximately 850,000 cubic yards of burn ash material were placed at the Shinohara I and II Burn Sites in 1978. Majority of the burn ash material subsequently was excavated and removed from Shinohara I site in 1993 and 2001. Approximately 1,500 cubic yards of burn ash left in place. County LEA issued closure letter in 2001.	Moderate likelihood that additional mitigation measures will be required. During future excavation activities, an environmental consultant should be retained to observe the property for evidence of contaminated soil (e.g., discoloration, odors). If evidence of contamination is found, the soil should be segregated and characterized for potential reuse or disposal options.
Shinohara II Burn Site	Adjacent to the north of former Dennery Ranch (City of Chula Vista)[1]	1	Approximately 850,000 cubic yards of burn ash material were placed at the Shinohara I and II Burn Sites in 1978. Up to a 40-foot-thick layer of burn ash is believed to exist at the property. Reportedly, additional assessment or mitigation activities have not been performed at the Shinohara II Burn Site to date.	High likelihood that additional mitigation measures will be required under the oversight of the County LEA. Mitigation measures would likely include soil excavation and disposal and /or construction of a cap over the burn ash material. A health risk assessment may also be required depending on future land use.
South Bay Operations Center	Northwest of northern termination of Air Wing Road.	3	Petroleum hydrocarbon release from a UST removed in 2007. DEH closed the UST case in 2011 due to limited extent of contamination. An estimated 200 cubic yards of impacted soil remain in-place in the area of the former UST.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.
Former Rohr Engine Test Facility (Currently Vacant)	1500 Heritage Road	3	Two cases associated with this former facility for releases of aviation fuel in 1987 and 1992 that impacted soil. Both cases have been closed by DEH; however, residual impacted soils may remain at this property.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.
Auto Recycling	980 Otay Valley Road	4	Release of diesel from an unreported source affected soil at this facility. Associated DEH case was closed in 2007; however, residual impacted soils may remain at this property.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Kaiser Foundation	4650 Palm Avenue	3	Gasoline from an overturned tanker reportedly entered a storm drain below the sidewalk adjacent to this facility. Sediment in the storm drain and soil and groundwater in the vicinity of the storm drain outfall at the Otay River were determined to be impacted. Following soil remediation activities and cleanup of groundwater to well below public health standards, DEH closed the case in 2011.	The release appears to have been limited to areas outside the boundaries of this facility. As such, no mitigation measures are anticipated to be required for this facility.
OLA Imports and Exports	935 Heritage Road	2	Staining observed during assessment activities in 1995 and numerous DEH violations from 1996 to 2007 at this facility indicate that petroleum-impacted soil likely remains at shallow depths (up to of depths of 5 feet) in various locations at the facility. The DEH noted that they have no objection to the continued use of the facility as an auto recycler provided that they are notified prior to surface grading or proposed changes in land use.	DEH records reviewed indicate that the case associated with this facility will not be closed until assessment of the extent of petroleum impacts has been performed. Likely mitigation measures would include segregation and characterization of impacted soils for potential reuse or disposal options.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Dillons Trail Site	Southwest of southern termination of Caliente Avenue	2	The Dillons Trail Site consists of several parcels where illegal disposal activities were initially discovered by the County LEA in 1987. The discarded material primarily consisted of demolition debris with minor amounts of solid waste. According to the City LEA, the majority of the waste from the illegal disposal activities at the property has been removed, and the City LEA no longer conducts inspections at this location. During the site reconnaissance, we observed evidence of illegal disposal of trash and debris throughout the interpreted location of the property. The City LEA, ESD, MSCP, and SDPD are all involved in a joint effort to clean up illegally dumped waste and prevent future illegal dumping on the site. Increased surveillance in the area has been effective at reducing dumping at this location. The City MSCP program has been acquiring the property to preserve it as open space, vernal pool habitat.[1]	High likelihood that additional mitigation measures, including trash/debris removal and disposal, will be required prior to redevelopment of this area. Chemical containers encountered during the trash/debris removal activities should be properly characterized and disposed of. If evidence of contaminated soil (e.g., discoloration, odors) is encountered during future redevelopment activities, it should be segregated and characterized for potential reuse or disposal options.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Barnhart and Dantzler Property	West of northern termination of Cactus Road	2	Formerly a part of the Tripp Salvage Landfill. Automobile dismantling waste was placed on the Barnhart and Dantzler Property from approximately 1968 to 1977. This material was covered with fill from other landfills in the area. It is estimated that the waste extends to a depth of approximately 65 feet. Groundwater samples collected from this property in 1998 reportedly contained VOCs, SVOCs, and metals. Total area containing waste is approximately 1.1 acres, and an asphalt cap was constructed over the areal extent of the waste in 2001. The County LEA issued "no further action" letter in 2003 for this property. The SR-905 expansion has been constructed over Barnhart Landfill location, and the site is now owned by Caltrans. The disposal site is under the jurisdiction of the City LEA, which must be consulted prior to any construction activities in the vicinity.[1] The Dantzler portion of the landfill is under an asphalt cap on private property. The City LEA must be consulted prior to any construction activities that may disturb the integrity of the cap.[1]	Low likelihood that additional mitigation measures will be required provided the asphalt cap remains in-place. Should future redevelopment include removal or disturbance of the cap at the Dantzler site or any construction activity near the Barnhart site, an environmental consultant should be retained and the City LEA contacted.[1]

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Sesi Property	Adjacent to the south of Barnhart and Danzler Property	1	Part of Tripp Salvage Landfill. Automobile dismantling waste was placed on the Sesi Property from approximately 1968 to 1977, and burn ash-contaminated soil was placed in on the property in 1987. This material was covered with fill from other landfills in the area. It is estimated that the waste extends to a depth of approximately 65 feet. Groundwater samples collected from this property in 1998 reportedly contained VOCs, SVOCs, and metals. A Revegetation Plan prepared 2006 proposed excavation of a portion of the waste and placement of a soil cap over the remaining waste. According to the County LEA, soil cap design and associated grading plans have been submitted to City of San Diego for review but the cap has not yet been constructed. The City of San Diego Development Services Department approved a grading permit to construct a soil cap to provide an adequate engineered cap over buried waste.[1]	Construction of the approved Remedial Action Work Plan as described in the Site Development Permit, in accordance with the grading permit, would provide adequate mitigation of this potential environmental concern.[1]
Martinez Ranch Compound	2160 Cactus Road	1	Soil sampling conducted in 2004 indicated that approximately 17,300 to 26,100 cubic yards of soil in the northeastern portion of Martinez Ranch were impacted with elevated concentrations of the pesticides DDE, DDT, and/or toxaphene. According to the DEH, the pesticide-impacted has not been mitigated.	High likelihood that mitigation of the pesticide-impacted will be required prior to redevelopment of this area.
Martinez Ranch Canyon Fill	Southwest of Martinez Ranch Compound	1	Analysis of soil samples collected in 2004 from the canyon fill showed elevated concentrations of petroleum hydrocarbons and lead. According to the DEH, the hydrocarbon and lead-impacted has not been mitigated.	High likelihood that mitigation of the hydrocarbon and lead-impacted will be required prior to redevelopment of this area.

TABLE 5.6-1
PROPERTIES/FACILITIES OF POTENTIAL ENVIRONMENTAL CONCERN
(continued)

Property	Location	Level of Environmental Concern*	Rationale	Recommended Mitigation
Former Martinez Outdoor Storage (Currently Innovative Cold Storage Enterprises)	2770 Martinez Ranch Road	3	Analysis of soil samples collected in 2009 showed detections of petroleum hydrocarbons related to a former AST and several pesticides related to historical agricultural use, but at concentrations below health screening levels for commercial/industrial land use.	Low likelihood that mitigation measures will be required provided the property continues to be zoned for commercial /industrial land use. If future plans for this property include residential development, further assessment of pesticides and petroleum hydrocarbons in soil would likely be required.
Britannia Boulevard Property (Currently occupied by a Business Park)	2133 Britannia Blvd	3	Soil samples analyzed in 2003 showed elevated concentrations of pesticides in shallow soil at this property. To mitigate the potential health risks, a concrete cap was constructed over the entire property. In addition, a deed restriction was recorded for the property on March 26, 2004, that stated the property was not suitable for uses that include "full-time human habitation."	Low likelihood that mitigation measures will be required provided the concrete cap continues to be maintained and the deed restriction remains in-place for the property. If land uses excluded in the deed restriction are planned for the property, the DTSC should be contacted.
Arco Service Station	2510 Otay Center Road	3	In 2003, a release of gasoline occurred in the area of the eastern dispenser island at this facility that affected soil only. The DEH closed the case in 2005 following excavation and disposal of approximately 138 cubic yards of impacted soil. An estimated 38 cubic yards of impacted soil remain in-place in the area of the eastern dispenser island.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.
Air Liquide Industrial	9955 Via de la Amistad	3	In 2004, a release of diesel was discovered in the area of a former dispenser island at this facility that affected soil only. The DEH closed the case in 2006 following excavation and disposal of approximately 15 cubic yards of impacted soil. An estimated 6 cubic yards of impacted soil remain in-place in the area of the former dispenser island.	Low likelihood that additional mitigation measures will be required. However, if residual impacted soil is encountered during future redevelopment, it should be segregated and characterized for potential reuse or disposal options.

*Level of Environmental Concern: (1) potentially significant impact, (2) less than significant impact with mitigation incorporation, (3) less than significant impact, or (4) no impact.

[1]SOURCE: Personal communication, Bill Prinz, City of San Diego, 2012.

with an impact level of 1 to 4: (1) potentially significant impact, (2) less than significant impact with mitigation incorporation, (3) less than significant impact, or (4) no impact. Of the 23 sites identified in the HMTS, 11 were ranked as less than significant, 5 were ranked as less than significant with mitigation, and 6 were identified as potentially significant. One site (Kaiser Foundation) was determined to have no impact.

The six sites (two of which are under the City's LEA) of potential significance are listed below:

- Martinez Ranch Canyon Fill;
- Martinez Ranch Compound;
- Sesi Property;
- Shinohara II Burn Site;
- San Diego Space Surveillance Station (Former U.S. Border Patrol Pistol Range); and
- Brown Field Operations Area.

5.6.1.3 Wildfire Hazards

Extended droughts characteristic of the CPU area's Mediterranean climate result in large areas of dry vegetation, particularly in late summer and fall, when Santa Ana winds blow in from the desert and dry out the vegetation. Potential wildfire risk zones within the CPU area are the areas that have steep slopes, limited precipitation, and plenty of available vegetation fuel. Currently, the CPU area contains undeveloped land that is occupied by a variety of native and non-native plant communities. Due to the amount of natural, unmaintained open space on the CPU area, the area poses a high risk for wildfires. As areas near natural open space undergo development, the risk of fire increases.

Current City regulations require that brush management zones be established adjacent to development to reduce the risk from wildland fires. Pursuant to the LDC, a Brush Management Program is required for future development within the CPU area. The purpose of such a program is to reduce the risk of wildfire while minimizing visual, biological, and erosion impacts to natural areas. In all the areas requiring brush management, a combination of two brush management zones occurs. Zone 1 consists of paving or ornamental plantings, which would be located within the development pad of each residential lot. Zone 2 involves the selective thinning and pruning of native vegetation and is considered impact neutral.

5.6.1.4 Aircraft Hazards

The state requires that the San Diego County Regional Airport Authority Board, as the ALUC, prepare an ALUCP for each public-use airport and military air installation in San Diego County. An ALUCP contains policies and criteria that address compatibility between airports and future land uses that surround them by addressing noise, over flight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards within the airport influence area for each airport over a 20-year horizon. The City of San Diego implements the adopted ALUCPs with the Airport Environs Overlay Zone (AEOZ). The City has agreed to submit discretionary projects within the airport influence area for each airport in the City with an adopted ALUCP to the ALUC for consistency determinations until the ALUC determines that the City's land use plans are consistent with the ALUCPs.

The Brown Field Municipal Airport is located within the CPU area. Brown Field Municipal Airport provides business, corporate, training, and charter aviation services that support commercial and industrial activities within the region. The airport helps relieve general airport congestion at Lindbergh Field and is a POE for private aircraft coming from and going to Mexico.

5.6.1.5 Emergency Preparedness

The County of San Diego Office of Emergency Services (OES) coordinates the overall county response to disasters. OES is responsible for: notifying appropriate agencies when a disaster occurs; coordinating all responding agencies; ensuring that resources are available and mobilized; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for the public.

OES staffs the Operational Area Emergency Operations Center, a central facility that provides regional coordinated emergency response, and also acts as staff to the Unified Disaster Council (UDC), its governing body. The UDC, established through a joint powers agreement among all 18 incorporated cities and the County of San Diego, provides for coordination of plans and programs countywide to ensure protection of life and property.

In 2010, the County and 18 local jurisdictions, including the City of San Diego, adopted the Multi-hazard Mitigation Plan (MHMP). The MHMP is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters. The plan is a comprehensive document that serves many purposes, including creating a decision tool for management, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, and providing interjurisdictional coordination (County of San Diego 2011).

The City of San Diego's disaster prevention and response activities are conducted in accordance with U.S. Department of Homeland Security Office of Domestic Preparedness

requirements and incorporate the functions of planning, training, exercising, and execution. The City's disaster preparedness efforts include oversight of the City's Emergency Operations Center (EOC), including being responsible for maintaining the EOC in a continued state of readiness, training City staff and outside agency representatives in their roles and responsibilities, and coordinating EOC operations when activated in response to an emergency or major event/incident (City of San Diego 2008a).

5.6.2 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds, a significant health and safety impact would occur if the CPU would:

1. Expose people or property to health hazards, including wildfire and airport operations;

2. Create a future risk of an explosion or the release of hazardous substances (including, but not limited to, gas, oil, pesticides, chemicals, or radiation) or expose people or the environment to a significant hazard through the routine transport, use, or disposal of hazardous materials; or

3. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

5.6.3 Issue 1: Health and Safety Hazards

Would the CPU expose people or property to health hazards, including wildfire and airport operations?

5.6.3.1 Impacts

a. Health Hazards

Potential health hazards associated with the CPU relate to the use, disposal, or transport of hazardous materials; and/or exposure to sites containing hazardous materials, including pesticides associated with current and past agricultural operations, and exposure to air contaminants. The use, disposal, or transport of hazardous materials is of potential concern where sensitive land uses such as residential, parks, or institutional uses are in proximity to industrial uses. This issue is addressed in Section 5.6.4 below. Exposure to sites containing hazardous materials is discussed in Section 5.6.5 and exposure to air contaminants is discussed in Section 5.3, Air Quality.

b. Wildfire Hazards

The City of San Diego receives limited precipitation; therefore, the potential for wildland fires represents a hazard, particularly on undeveloped properties or where development is adjacent to open space or within close proximity to wildland fuels. As the CPU would maintain an extensive network of natural open space, development adjacent to this open space would be subject to a significant risk of fire hazards. Existing policies and regulations would help reduce, but not eliminate, risks from wildfires. The City's General Plan contains goals to be implemented by the City's Fire-Rescue Department, and sustainable development and other measures aimed at reducing the risks of wildfires.

Additionally, CPU policy 6.1-3 is intended to reduce the risk of wildfire hazards. Policy 6.1-3 would enforce Brush Management Regulations in vacant areas in order to reduce the risk of fire-related emergencies. Pursuant to LDC Section 142.0412 et seq., brush management is required in all base zones on publicly or privately owned premises that are within 100 feet of a structure and contain native or naturalized vegetation. The City requires submittal of Brush Management Plans for all new development, which are intended to reduce the risk of significant loss, injury, or death involving wildland fires. Unless otherwise approved by the City Fire Marshal, the brush management plans for all future development would consist of two separate and distinct zones as follows:

- **Zone One** would consist of the area adjacent to structures where flammable materials would be minimized through the use of pavement and/or permanently irrigated ornamental landscape plantings. This zone would not be allowed on slopes with a gradient greater than 4:1.

- **Zone Two** would consist of the area between Zone One and any area of native or non-irrigated vegetation and shall consist of thinned native or naturalized vegetation.

In addition, as a standard condition of approval, all future development within the CPU area would be required to comply with the 2010 California Fire Code (CFC) requirements and the LDC Section 145.07 et seq., "Additions and Modifications to Chapter 7 of the 2010 California Building Code." The CFC provides specific building requirements, including prohibitions on the use of wood shingles and special requirements for the provision of emergency access and water. Future development proposals would be reviewed for compliance with all City and Fire Code requirements aimed at ensuring the protection of people or structures from potential wildland fire hazards.

c. Aircraft Hazards

Proposed land uses within the AIA, as defined by the Brown Field Municipal Airport ALUCP, adopted in January 2010, would result in the potential exposure of people to safety hazards.

The AIA for Brown Field extends well outside the airport property, north into the City of Chula Vista; east into unincorporated San Diego County; south to the International Border and west into the Cities of Imperial Beach and National City. The Safety Zones as established by the ALUCP also extend to both the east and west outside of the airport property.

Policies and criteria contained in the ALUCP for Brown Field are implemented by the supplemental development regulations in the Airport Land Use Compatibility Overlay Zone of the Municipal Code. In order to ensure that future development within the CPU area addresses airport land use compatibility issues consistent with adopted policies and regulations, the CPU Noise Element includes Policy 9.1-1. Policy 9.1-1 states that "Prior to the approval of individual development projects for any proposed building or use located within the AIA for Brown Field, all applicable conditions and criteria in the Airport Land Use Compatibility Plan for Brown Field shall be satisfied."

Implementation of this policy would ensure that buildout of the CPU area would occur in a manner consistent with the adopted ALUCP for Brown Field, and related policies and regulations. Therefore, the implementation of the General Plan and CPU policies that address land use compatibility would support the development of future uses consistent with the adopted ALUCP and preclude any health and safety impacts of off-airport aircraft accidents.

The ALUCP does not address existing structures or uses that would be incompatible or considered a hazard; therefore, existing uses and structures within the CPU area would continue to pose a safety hazard to airport operations. While the ALUCP contain policies and criteria to limit future incompatible uses and safety impacts, they cannot prevent aircraft accidents from occurring such as a loss of power after takeoff.

5.6.3.2 Significance of Impacts

a. Health Hazards

Please refer to Section 5.3, Air Quality and Sections 5.6.4, and 5.6.5, below, for a discussion of exposure to health hazards. As indicated in those sections, hazardous sites have been identified that could result in significant impacts to future development within the CPU area.

b. Wildfire Hazards

Existing policies and regulations would help reduce, but not completely abate, the potential risks of wildland fires. The General Plan and CPU contain goals and policies to be implemented by the City's Fire-Rescue Department, and through land use compatibility, training, sustainable development, and other measures, these goals and policies are aimed at reducing the risk of wildland fires.

Continued monitoring and updating of existing development regulations and plans also would assist in creating defensible spaces and reduce the threat of wildfires. Public education, firefighter training, and emergency operations efforts would reduce the potential impacts associated with wildfire hazards.

Additionally, future development would be subject to conditions of approval that require adherence to the City's Brush Management Regulations and requirements of the California Fire Code.

However, because of the existing and proposed land use patterns around which the community is formed, new development in the wildland interface areas may expose additional people and structures to wildland fire hazards, representing a potentially significant impact. Therefore, impacts associated with wildfires would be significant at the program-level.

c. Aircraft Hazards

Implementation of the General Plan and CPU policies that address land use compatibility would support the development of future uses consistent with the adopted ALUCP. This would preclude any health and safety issues associated with off-airport aircraft accidents. Future discretionary projects within the CPU area, located within the AIA for Brown Field, would be submitted to the ALUC for a consistency determination. However, future projects could conflict with the Federal Aviation Administration (FAA) requirements unless the City implements a mechanism to ensure either the project would not include features identified in Part 77 criteria for notification or the project obtains a No Hazard to Air Navigation from the FAA. Thus, potential aircraft hazards impacts would be potentially significant.

5.6.3.3 Mitigation Framework

a. Health Hazards

Please refer to Sections 5.3, 5.6.4, and 5.6.5. In accordance with the CPU policies, mitigation identified in Sections 5.3, 5.6.4, and 5.6.5 shall be required to reduce potential health hazards to future development from hazardous sites.

b. Wildfire Hazards

HAZ-1: Future projects implemented in accordance with the CPU shall be required to incorporate sustainable development and other measures into site plans in accordance with the City's Brush Management Regulations, and Landscape Standards pursuant to GP and CPU policies intended to reduce the risk of wildfires. In addition, all future projects shall be reviewed for compliance with the 2010 California Fire Code, Section 145.07 of the LDC, and Chapter 7 of the California Building Code.

c. Aircraft Hazards

Future projects developed in accordance with the CPU have the potential to conflict with FAA requirements and result in a significant aircraft hazards impact. To avoid this impact, the following shall be implemented:

HAZ-2: To prevent the development of structures that may pose a hazard to air navigation, the City shall inform project applicants for future development concerning the existence of the Part 77 imaginary surfaces and Terminal Instrument Procedures and FAA requirements. The City shall also inform project applicants when proposed projects meet the Part 77 criteria for notification to the FAA as identified in City of San Diego Development Services Department Information Bulletin 520. The City shall not approve ministerial projects that require FAA notification without a FAA determination of "No Hazard to Air Navigation" for the project. Also, the City shall not recommend approval for discretionary projects that require FAA notification without a FAA determination of "No Hazard to Air Navigation" for the project until the project can fulfill state and ALUC requirements.

5.6.3.4 Significance after Mitigation

a. Health Hazards

Please refer to Sections 5.3, 5.6.4, and 5.6.5. Implementation of the mitigation framework identified in Section 5.6.5.3 would reduce potential health hazards to below a level of significance.

b. Wildfire Hazards

Implementation of the mitigation framework identified in Section 5.6.3.3 under HAZ-1 would reduce potential wildfire hazards to below a level of significance.

c. Aircraft Hazards

Future projects developed in accordance with the CPU have the potential to conflict with FAA requirements and result in a significant aircraft hazards impact. With implementation of HAZ-2, potential future project aircraft hazards impacts would be reduced to below a level of significance.

5.6.4 Issue 2: Hazardous Substances

Would the CPU create a future risk of an explosion or the release of hazardous substances (including, but not limited to, gas, oil, pesticides, chemicals, or radiation)? Would the CPU

expose people or the environment to a significant hazard through the routine transport, use, or disposal of hazardous materials?

5.6.4.1 Impacts

Several uses that would be allowed within the commercial, industrial, or multiple use designations of the CPU, including gasoline service stations, automobile repair facilities, dry cleaning facilities, various industrial facilities, chemical facilities, photograph developing facilities, and medical and dental facilities, would use or dispose of hazardous materials. The areas of greatest concern would be in the village centers and where residential, institutional, or park uses would be adjacent to facilities which utilize hazardous substances. For this reason, the CPU incorporates several measures to reduce the potential for hazards. In addition, many of the existing land uses within the CPU area use or dispose of hazardous materials, including six on the LUST list that are associated with DEH Site Assessment and Mitigation cases, representing potential environmental concerns to the CPU area.

As part of the CPU process, opportunities for employment uses and areas appropriate for workforce housing near job centers have been identified. Uses with nuisance or hazardous characteristics are restricted to Heavy Industrial designated areas and would be segregated from other uses. In addition, the CPU establishes several policies for residential-industrial interface areas and an internal interface area within village centers and designated Business Park-Residential Permitted areas. The CPU policies include performance standards to protect health, safety, and welfare of residents and users. The only industrial uses permitted with the Community Village and Business Park-Residential permitted designations are multi-tenant industrial office, corporate headquarters, and compatible research and development uses. In addition, future development would be subject to environmental review and discretionary approval to ensure appropriate uses reduce the potential for hazards.

The CPU development policies and design guidelines for residential-industrial interface areas (collocation) include:

2.2-4 Provide adequate buffer uses/distance separation for residential proposals within a quarter mile of industrial uses with hazardous or toxic substances.

2.4-2 Provide adequate land use buffers and/or distance separation from residential uses for heavy industrial proposals with hazardous or toxic substances.

a. Consider office, commercial, retail, and parking uses as acceptable buffer uses within the village freeway interface area.

b. Locate schools, parks, and libraries outside of interface areas. (See Section 5.3 Air Quality for details about facilities and buffer distances.)

c. Determine distance separation on a case-by-case basis based on an approved study submitted by an applicant, or if no study is prepared, provide a 1,000-foot minimum distance separation.

d. Apply the buffer to sensitive receptors located along the U.S.-Mexico International Border.

2.4-3 Reduce or mitigate the environmental and negative impacts of Heavy Industrial uses on surrounding areas, such as noise, visual, and air quality impacts. Consider design elements that include, but are not limited to, landscape, site orientation, fencing, and screening.

2.4-4 Maintain the Light Industrial land use designation for the development of light manufacturing, distribution and storage uses, while providing adequate buffers, such as distance, landscape, berms, walls and other uses, where adjacent to open space, residential development, and educational facilities.

2.4-7 Allow for a wide range of businesses that do not negatively impact sensitive receptors to locate in the Business Park and areas adjacent to parks and village areas.

a. Provide adequate buffers, such as distance, landscape, berms, walls and other uses, where adjacent to public parks and educational facilities.

2.4-9 Provide adequate buffers, such as land uses, landscape, walls, and distance between the residential component of the Business Park – Residential Permitted lands, SR-905, and Britannia Boulevard to minimize negative impacts of air quality, noise, and truck transportation on residents.

4.1-9 Create a visual and distance separation between the public right-of-way and industrial uses such as auto dismantling, truck transportation terminals, and other uses that create noise, visual, or air quality impacts. Screen building and parking areas by using a combination of setbacks, swales, fencing, and landscape. Encourage buffer areas that use appropriate screening.

4.1-17 Require a distance separation, which may include landscape treatments, parking, sidewalks, and street right-of-way, between the IBT and Heavy Industrial uses of the South District and the village and educational facilities of the Central District.

4.2-2 Incorporate connectivity and walkability in the design of the street network.

a. Apply traffic-calming techniques, such as popouts, raised crosswalks, and parkways at truck route intersections with Airway Road and where the truck routes are adjacent to village and park uses.

4.5-8 Create a visual buffer between Heavy Industrial sites and public streets, public facilities, and open space.

a. Create a berm within the setbacks facing the public right-of-way.

b. Place a masonry wall along the berm, with variation breaks for articulation.

c. Include a landscape buffer between the sidewalk or street and the berm and wall for additional screening.

d. Require street trees from Appendix B, the Street Tree Plan for Otay Mesa.

7.1-12 Site the Grand Park at the southwestern corner of Cactus and Airway Roads.

a. Site the Grand Park beyond any buffer areas for industrial to the east and south.

b. Establish pedestrian linkages to the village areas to the west and north.

8.7-5 Maintain a buffer with transitional uses between land uses that allow sensitive receptors and the truck routes.

8.7-6 Maintain a buffer with transitional uses between land uses that allow sensitive receptors and the Heavy Industrial and International Business and Trade designations.

Additionally, future development projects would be required to comply with the collocation policies of the General Plan, which are necessary to reduce or avoid potential land use incompatibility impacts (including hazardous materials), and which would include but not be limited to the special policies and performance standards for residential-industrial interface areas, truck circulation, and industrial design; as well as the relevant and mandatory city, state, and federal controls on industrial and residential land uses.

Existing federal, state, and local regulations and procedures pertaining to the handling, storage, and transport of potentially hazardous materials would apply to all future development within the CPU area. A number of local, state, and federal regulations address the prevention of accidental releases of chemicals that would affect human health. The CalARP Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of property. Facilities that would be required to participate in the CalARP program use or store specified quantities of toxic and flammable substances (hazardous materials) that would have off-site consequences if accidentally released. The County of San Diego DEH reviews CalARP risk management plans.

State law (California Health and Safety Code) requires the mapping of "general areas" within which hazardous waste facilities would be established. Proposed hazardous waste facilities areas would not be permitted within the CPU.

Truck traffic from industrial uses, as well as the international truck traffic, would include fuel delivery, hazardous waste transportation, sewer or water treatment service trucks, or other chemical transporters that would pose significant impacts in the event of an accidental release or explosion. As discussed in Section 5.12, Transportation/Circulation, of this EIR specific truck circulation routes would be implemented with the CPU in order to limit truck hazards to specific locations away from residential and public areas. In addition, the City of San Diego Fire-Rescue Department maintains a Hazardous Materials Incident Response Team which is trained to protect lives and property from incidents involving hazardous materials such as chemical explosions and spills. The transport of hazardous materials is a regulated activity and transporters would be required to obtain permits prior to operations.

Under the CPU, existing industrial and commercial land uses that generate, transport, or temporarily store hazardous waste within the vicinity of residential uses would remain in some areas. Additionally, trucks serving local businesses would expose residents to hazards associated with the release of hazardous materials (i.e., spillage; accidents, and explosions) that would be transported through the CPU area.

5.6.4.2 Significance of Impacts

The CPU proposes new uses near existing industrial development or existing properties of environmental concern, as well as industrial and commercial land use designations that would allow certain business and industrial operations to generate, transport, or temporarily store hazardous waste within the vicinity of residential uses. Additionally, trucks serving local businesses would expose residents to hazards associated with the release of hazardous materials (i.e., spillage; accidents, and explosions) that would be transported through the CPU area. Improved roadway and transportation modifications would reduce the potential risk of exposure from hazardous materials to residents as a result of transporting hazardous materials.

5.6.4.3 Mitigation Framework

Because no significant impact has been identified, no mitigation is required. Disclosure of adherence to the requirements outlined in the City's Municipal Code related to minimizing potential impacts from hazardous materials, as well as any regulations imposed by federal, state and other local agencies would be required during the discretionary review process.

5.6.4.4 Significance after Mitigation

As noted above in Section 5.6.4.1, implementation of the policies contained in the General Plan, CPU, and regulations imposed by federal, state, and local agencies, including the U.S. EPA, RCRA, California Department of Health Services (DHS), County of San Diego DEH and Caltrans would reduce potential impacts to below a level of significance. For example, disclosure laws require all users, producers, and transporters of hazardous materials to clearly identify materials they store, use, or transport and to notify the appropriate agency in the event of a violation. Future development would be subject to discretionary review with subsequent environmental review to ensure risks are minimized. Impacts would be less than significant.

5.6.5 Issue 3: Hazardous Sites

Would the CPU uses be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

5.6.5.1 Impacts

The HMTS identifies a number of sites within the CPU area as containing hazardous materials, which would present a significant hazard to the public or the environment through the approval of future development within the CPU area. Details on the contaminant(s) located within the CPU area, along with any past remedial efforts/environmental studies that have been completed for sites within the CPU area, are discussed in detail in the 2012 Updated HMTS (see Appendix F).

Of the 23 sites of potential environmental concern (refer to Table 5.6-1), six were determined to pose a potentially significant hazard to future development within the CPU area. Development in accordance with the CPU has the potential to place sensitive receptors on, or adjacent to, these known hazardous materials sites. Any development or redevelopment proposed for residential, or other sensitive land uses within these areas represents a potential significant impact to health and safety. Furthermore, there is also the potential for unknown hazardous material sites to be present in the CPU area. Unknown sites not identified the HMTS would have the potential to create a significant hazard to the public or the environment. In addition, any property proposed for future development within ¼ mile of a known release site (open or closed) has the potential to result in a significant impact to human health and safety.

Existing regulations, as described in Section 5.6.1.1, also require that future projects demonstrate that the site is suitable for the proposed land use. For sites with recorded hazardous material concerns, project applicants would obtain confirmation from the DEH that the site has been remediated to the extent that it is required for the proposed use. For

example, residential development requires a greater level of remediation than a commercial or industrial use.

Future projects with the potential to expose inhabitants to unacceptable levels of contamination associated with hazardous materials sites would result in significant impacts. The following CPU policies are designed to reduce the risk of health and safety hazards from the previously discussed hazardous sites within the CPU area:

6.11-1 Implement established remediation protocols to reduce public health risks to negligible levels.

6.11-2 Require documentation of hazardous materials investigation addressing site and building conditions during review of all development projects.

5.6.5.2 Significance of Impacts

The presence of sites compiled pursuant to Government Code Section 65962.5, along with any unknown hazardous sites, would have potentially significant impacts on future development and land uses within the CPU area.

5.6.5.3 Mitigation Framework

In accordance with CPU policies 6.11-1 and 6.11-2, future projects implemented in accordance with the CPU shall be required to implement the following measures prior to approval of any discretionary action.

HAZ-3:

a. A Phase I Site Assessment shall be completed in accordance with federal, state, and local regulations for any property identified on a list compiled pursuant to Government Code Section 65962.5. The report shall include an existing condition survey, detailed project description, and specific measures proposed to preclude upset conditions (accidents) from occurring. If hazardous materials are identified, a Phase II risk assessment and remediation effort shall be conducted in conformance with federal, state, and local regulations.

b. The applicant shall retain a qualified environmental engineer to develop a soil and groundwater management plan to address the notification, monitoring, sampling, testing, handling, storage, and disposal of contaminated media or substances (soil, groundwater). The qualified environmental consultant shall monitor excavations and grading activities in accordance with the plan. The groundwater management and monitoring plans shall be approved by the City prior to development of the site.

c. The applicant shall submit documentation showing that contaminated soil and/or groundwater on proposed development parcels have been avoided or remediated to meet cleanup requirements established by the local regulatory agencies (RWQCB/DTSC/DEH) based on the future planned land use of the specific area within the boundaries of the site (i.e., commercial, residential), and that the risk to human health of future occupants of these areas therefore has been reduced to below a level of significance.

d. The applicant shall obtain written authorization from the regulatory agency (RWQCB/DTSC/DEH) confirming the completion of remediation. A copy of the authorization shall be submitted to the City to confirm that all appropriate remediation has been completed and that the proposed development parcel has been cleaned up to the satisfaction of the regulatory agency. In the situation where previous contamination has occurred on a site that has a previously closed case or on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, the DEH shall be notified of the proposed land use.

e. All cleanup activities shall be performed in accordance with all applicable federal, state, and local laws and regulations, and required permits shall be secured prior to commencement of construction to the satisfaction of the City and compliance with applicable regulatory agencies such as but not limited to San Diego Municipal Code Section 42.0801, Division 9 and Section 54.0701.

5.6.5.4 Significance after Mitigation

Future development implemented in accordance with the CPU would be required to implement the measures adopted in conjunction with certification of this PEIR which requires preparation of a Phase I Site Assessment, consultation with the appropriate regulatory and verification that health risk has been remediated in accordance with all applicable local, state and federal regulations. In addition, as noted above in Section 5.6.4.1, implementation of the policies contained in the General Plan, CPU, and regulations imposed by federal, state, and local agencies, including the U.S. EPA, RCRA, California Department of Health Services (DHS), County of San Diego DEH and Caltrans would reduce potential impacts to below a level of significance.

5.7 Hydrology/Water Quality

This section addresses the flow and quality of surface and ground water within the CPU area. A Drainage Study of the CPU area was prepared by Kimley Horn & Associates (2007). This document is included as Appendix G-1 to this PEIR. An additional document, entitled Review of Otay Mesa Drainage Studies, was prepared by Tetra Tech in 2010 to provide a summary of previous drainage including the aforementioned Drainage Study. Among other things, this document updates the regulatory framework of these past studies and assesses the application of their conclusions in conjunction with the CPU. This document is included as Appendix G-2 to this PEIR. Appendix G-3 to the PEIR is a Water Quality Technical Report prepared by Kimley Horn & Associates (2007) for the CPU.

5.7.1 Existing Conditions

The hydrology of the CPU area is affected by absorption rates, drainage patterns, and the rate of surface runoff. Absorption rate is the time required for pervious ground to absorb rainwater. Drainage patterns are the footprints of travel of unabsorbed water from high elevations to lower elevations. The rate of surface runoff is how quickly unabsorbed water travels within a drainage system to receiving water. Urbanization increases surface runoff rates by creating more impervious surfaces, such as paving and buildings, which prevent percolation of water into the soil. Instead, water goes to the streams which would result in increased flood risk. Urbanization also increases water pollution, as pollutants would drain into receiving waters without being filtered through soils.

5.7.1.1 Watershed Management Areas, Hydrologic Units, and Hydrologic Subareas

The State Water Resources Control Board and Regional Water Quality Control Board are responsible for protecting California's water resources. California is divided into nine regions, also referred to as basins, based on major watersheds. The RWQCBs are located within these regions. Each of the RWQCBs contributed a chapter outlining watershed management strategies to the SWRCB's Watershed Management Initiative (WMI) to further their goals. As dictated by the WMI, there are six watershed management areas (WMAs) located within the City's boundary.

The San Diego RWQCB prepared the Water Quality Control Plan for the San Diego Basin (Basin Plan; 1994), which identifies the water quality objectives for waters in the basin and further subdivides it into hydrologic units (HUs), hydrologic areas (HAs), and hydrologic subareas (HSAs). A hydrologic unit is defined as the entire watershed of one or more major streams. Hydrologic areas consist of watersheds of major tributaries and/or major groundwater basins within a hydrologic unit. Hydrologic subareas are major subdivisions of hydrologic areas including both water-bearing and non-water-bearing formations.

With one exception, the WMAs consist of the entirety of a hydrological unit and the adjoining coastal waters. The exception is the San Diego Bay WMA, which consists of the San Diego Bay and three other HUs (908–Pueblo San Diego, 909–Sweetwater, and 910–Otay).

As shown in Figure 5.7-1, the northern portion of the CPU area (2.229 acres) is located within the San Diego Bay WMA, the Otay HU (910), the Otay Valley HA (910.2), and the Otay Valley HSA (910.20). The Otay HU is described by the Basin Plan as a club-shaped area of about 160 square miles with the Otay River and its tributaries as its major stream system. The Lower Otay Reservoir is the terminus of the second San Diego Aqueduct. Major population centers within the watershed include Imperial Beach, Coronado, and Dulzura. Annual precipitation varies generally from 11 to 19 inches.

The southern portion of the CPU area (7,080 acres) is located within the Tijuana River WMA, the Tijuana HU (911), and the Tijuana Valley HA (911.1). As shown in Figure 5.7-1, the western portion of the CPU is within the San Ysidro HSA (911.11), while the southeast portion is within the Water Tanks HSA (911.12). As described by the Basin Plan, the Tijuana HU (see Figure 5.7-1) is drained by Cottonwood and Campo creeks which are tributaries to the Tijuana River. This HU covers an area of about 470 square miles and is sparsely populated except at the major population centers at San Ysidro and Campo. The annual rainfall varies from less than 11 inches to more than 25 inches near Laguna Mountain. Runoff is captured by Morena Reservoir and Barrett Lake on Cottonwood Creek.

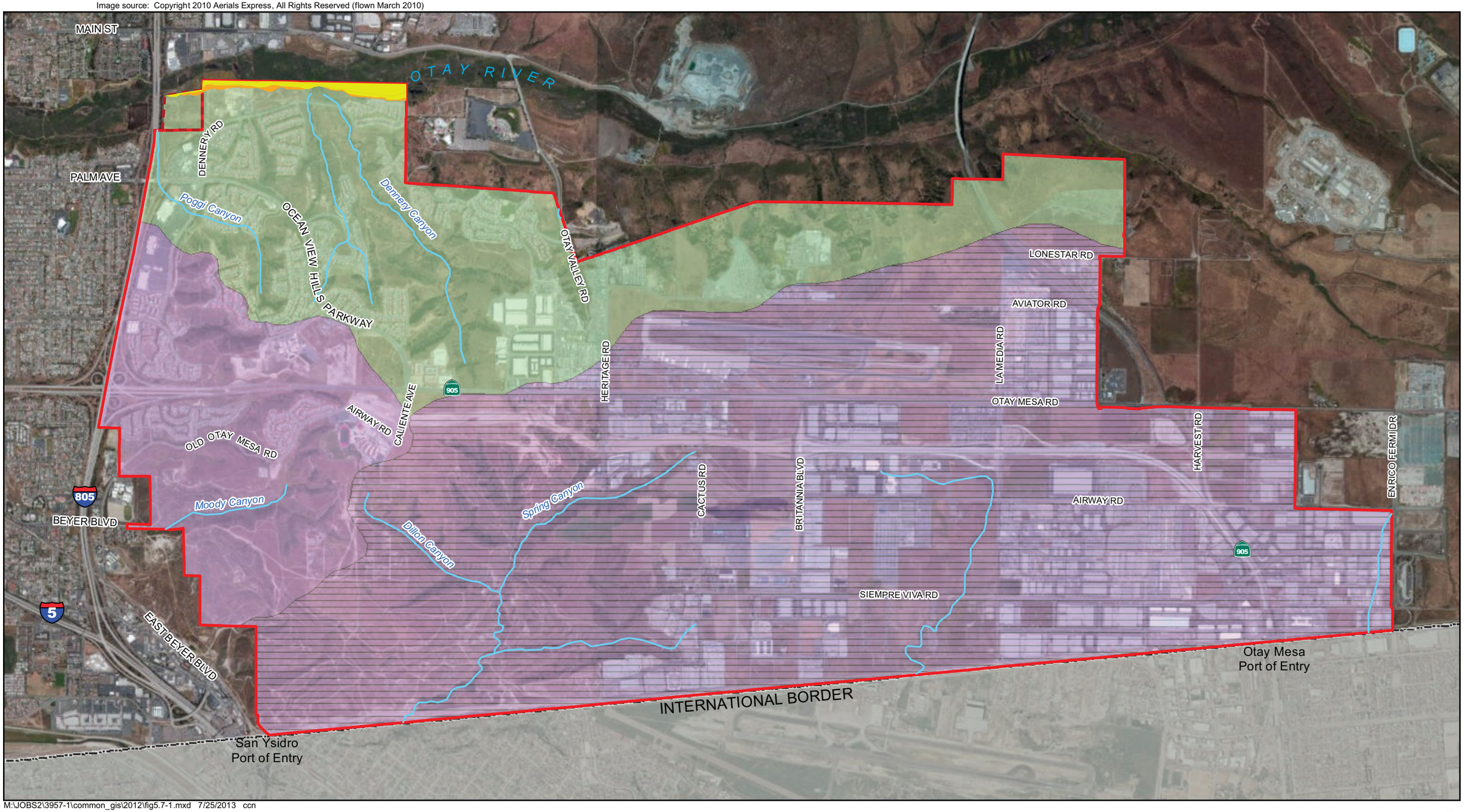
The Tijuana River WMA is not entirely within the jurisdiction of the San Diego RWQCB. The Tijuana River WMA covers a total of 1,720 square miles in California and Mexico. Approximately 467 square miles, or 27 percent, of this watershed lies in California under the jurisdiction of the San Diego RWQCB; the remainder lies in Mexico. Water flows from across the international border from the U.S. to Mexico, and from Mexico to the U.S. Raw sewage discharges into the Tijuana River from Mexico have adversely affected water quality and pose a public health threat to residents on both sides of the border (RWQCB 2002).

a. Surface Waters/Drainage Patterns

Most of the CPU area drains to the south across the border with Mexico and eventually into the Tijuana River. A small portion flows north into the Otay River, and the far western part of the CPU area flows to the west through San Ysidro and then into the Tijuana River.

As detailed in Appendix G-1 and shown in Figure 5.7-2, the CPU area is subdivided into five drainage areas, which includes all of the CPU area except for the far northwest arm, which is fully developed. Since this area is fully developed, it was not included as part of the analysis in Appendix G-1. The drainage area boundaries are not well defined

Image source: Copyright 2010 Aerials Express, All Rights Reserved (flown March 2010)



M:\JOBS2\3957-1\common_gis\2012\fig5.7-1.mxd 7/25/2013 ccn

0 Feet 2,500

Otay Mesa Community Plan Boundary
Not A Part
National Hydrography Dataset Streams

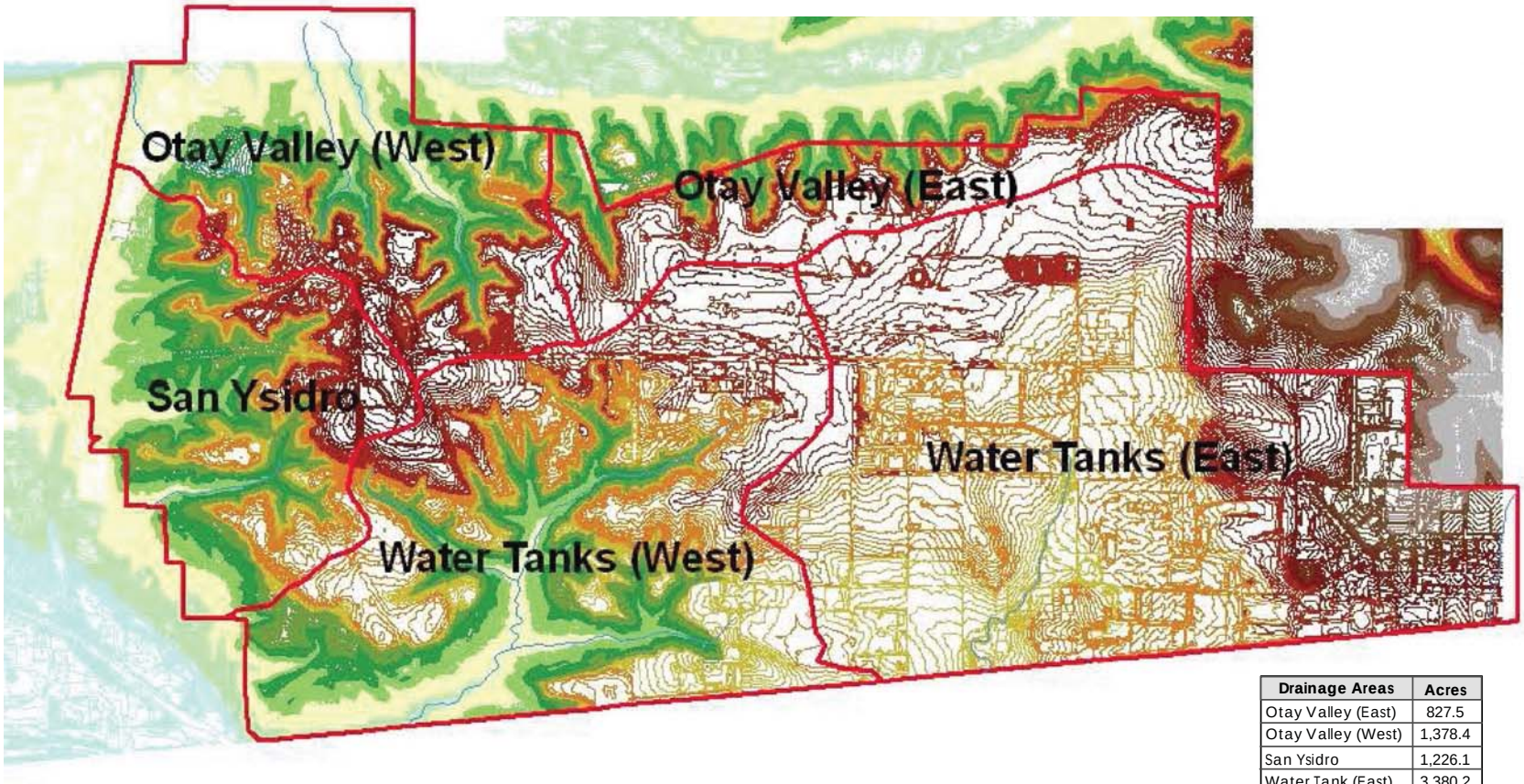
FEMA Flood Zone
100 Year Flood Zone
500 Year Flood Zone

Watershed Management Area, Hydrologic Unit, Hydrologic Area, Hydrologic Subarea
San Diego Bay, Otay, Otay Valley, Otay Valley
Tijuana River, Tijuana, Tijuana Valley, San Ysidro
Tijuana River, Tijuana, Tijuana Valley, Water Tanks

FIGURE 5.7-1
Existing Hydrologic Conditions

THIS PAGE IS INTENTIONALLY BLANK.

Map Source: City of San Diego



Drainage Areas	Acres
Otay Valley (East)	827.5
Otay Valley (West)	1,378.4
San Ysidro	1,226.1
Water Tank (East)	3,380.2
Water Tank (West)	2,488.0
Total	9,300.2

Streams (NHD) Drainage Areas

No Scale

FIGURE 5.7-2
Drainage Areas

M:\JOBS2\3957-1\env\graphics\fig5.7-2.ai 08/05/13

because much of the CPU area is very flat. There are very few defined natural drainage paths, with much of the runoff sheet flowing across the CPU area. The five drainage areas, which comprise the CPU area, and their approximate acreages are shown in Table 5.7-1 and described below.

TABLE 5.7-1
OTAY MESA CPU DRAINAGE AREAS

Drainage Areas	Acres	Square Miles
West Perimeter	258	0.40
West	2,190	3.42
North Perimeter	590	0.92
East	3,864	6.04
Border Crossing	223	0.35
TOTAL	7,125*	11.13

*Does not include the fully developed northwestern area of the CPU area.

West Perimeter Drainage Area

The West Perimeter Drainage Area consists of smaller mesa-top watersheds that drain to the west to three separate creeks in canyons and gullies. These creeks are carried under the San Diego and Arizona Eastern Railroad (SD&AE) and Trolley tracks and through San Ysidro in buried storm drain systems. Existing 50-year and 100-year peak flows of the drainage area are 170 and 444 cfs, respectively.

West Drainage Area

The West Drainage Area consists of smaller mesa-top areas that drain into the tributary canyons of Spring Canyon. All of the flow from the drainage area flows into Mexico at the Spring Canyon concentration point. Existing 50-year and 100-year peak flows of the drainage area are 672 and 1,676 cfs, respectively.

North Perimeter Drainage Area

The North Perimeter Drainage Area consists of small drainage areas along the northern edge of the CPU area that flow into small canyons and into the Otay River.

East Drainage Area

The East Drainage Area flows to Mexico at a single concentration point between Britannia and La Media roads. This is the largest drainage area within the CPU area. All flows from this area collect at a concentration point at a large culvert where flows cross the U.S./Mexico border. The surrounding area is fairly flat and adjacent properties have difficulty draining effectively into the existing creek during larger storm events. The existing drainage is a combination of storm drains, improved channels, and detention basins, which discharge in many areas to natural drainage paths that do not have

adequate hydraulic capacity. As projects have been developed in this area, portions of the private properties have been dedicated to the City as drainage easements or flood water storage easements. Existing 50-year and 100-year peak flows of the drainage area are 1,280 and 3,673 cfs, respectively.

Border Crossing Drainage Area

This 223-acre drainage area is located within the southeastern corner of the CPU area and is adjacent to the United States–Mexico border. This drainage area includes the border crossing facilities.

5.7.1.2 Receiving Waters

a. Beneficial Uses

The San Diego RWQCB is the regional agency that is responsible for establishing ground and surface water quality objectives for the San Diego region, which are identified in the Basin Plan.

Beneficial uses are the uses of water necessary for the survival or well-being of humans, plants, and wildlife. These uses of water serve to promote economic, social, and environmental goals. Water quality objectives and beneficial uses can be found in the Basin Plan. The Basin Plan assigns multiple beneficial uses pertaining to inland surface water, ground water, and coastal waters within the Otay and Tijuana WMAs.

Tijuana Hydrologic Unit of the Tijuana River Watershed Management Area

Beneficial uses of the inland surface water include municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, freshwater replenishment, contact water recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened, or endangered species. Beneficial uses of the groundwater include municipal and domestic supply, agricultural supply, and industrial service supply. Beneficial uses of the coastal waters include industrial service supply, navigation, commercial and sport fishing, contact water recreation, non-contact water recreation, biological habitats of special significance, estuarine habitat, wildlife habitat, rare, threatened, or endangered species, marine habitat, migration of aquatic organisms, and shellfish harvesting.

Otay Hydrologic Unit of the San Diego Bay Watershed Management Area

Beneficial uses of the inland surface water include municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, contact water recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened, or endangered species. Beneficial uses of groundwater include municipal and domestic supply, agricultural supply, industrial service supply, and

industrial process supply. Beneficial uses of the coastal waters include industrial service supply, commercial and sport fishing, navigation, contact water recreation, non-contact water recreation, estuarine habitat, wildlife habitat, rare, threatened, or endangered species, marine habitat, migration of aquatic organisms, shellfish harvesting, and spawning, reproduction and/or early development.

b. Impaired Water Bodies

In accordance with the federal Clean Water Act section 305(b), the SWRCB and RWQCBs periodically compile an inventory of the state's major waters and the water quality condition of those waters, using monitoring data and other pertinent information. Waters are categorized as good, intermediate, impaired, or of unknown quality. Impaired waters are categorized in accordance with requirements of various Clean Water Act sections (e.g. 303[d]).

According to the 2010 State Impaired Water Bodies 303(d) List of Water Quality Limited Segments, the San Diego Bay is listed as an impaired water body for polychlorinated biphenyls (PCBs). The Tijuana River is listed as an impaired water body for eutrophic, indicator bacteria, low dissolved oxygen, pesticides, phosphorus, sedimentation/siltation, selenium, surfactants, solids, synthetic organics, total nitrogen, toxicity, trace elements, and trash.

5.7.1.3 Groundwater

The geotechnical study for the project, prepared by Geocon Incorporated, found that near surface groundwater (less than 20 feet deep) is unlikely to occur in the geologic formations found within the CPU area, and groundwater is not anticipated to be a consideration for most of the developable areas along the top of Otay Mesa. Small areas of alluvium in canyon bottoms would potentially contain groundwater and localized perched water conditions would develop during the wet season in some of the drainage canyon areas.

5.7.1.4 Flood Hazards

Most of the CPU area is very flat, resulting in local flooding during storms at the low points and along some drainage ditches. The main channel in the East Watershed, Otay Mesa Creek, flows from north to south along La Media Road and crosses the border into Mexico just north of the General Abelardo L. Rodriguez International Airport. As detailed in Appendix G-1, a hydraulic model was prepared as part of the study for this channel from the border north to Otay Mesa Road. The purpose of this model was to identify the 100-year floodplain for this area. As shown in Figure 5.7-1, an area within the northwest watershed along the Otay River is designated as FEMA 100- and 500-year floodplains. As shown in Figure 5.7-2, the hydraulic model showed that the area adjacent to the Otay Mesa Creek channel is within a 100-year floodplain.

5.7.1.5 Existing Drainage Facilities

The existing drainage system throughout the CPU area is a combination of storm drains, improved channels, and detention basins, which in many areas discharge to natural drainage paths.

There are currently no dedicated drainage rights-of-way within the CPU area. Many existing projects, as they were mapped and constructed, were required to dedicate portions of the properties to the City as drainage easements or flood water storage easements as a condition of project approval (i.e., development permits, tentative maps).

5.7.1.6 Existing Regulatory Framework

Various federal, state, and local regulations impose requirements on new development for erosion control, control of runoff contaminants, and control of direct discharge of water quality pollutants. These requirements are summarized below.

a. Federal Clean Water Act

The Clean Water Act is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The Clean Water Act established basic guidelines for regulating discharges of pollutants into the waters of the U.S. and requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the Clean Water Act.

Section 401 of the Clean Water Act requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility which may result in the discharge of any pollutant, must obtain certification from the state. Section 402 of the Clean Water Act established the National Pollution Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources, and Section 404 established a permit program to regulate the discharge of dredged material into waters of the U.S. Implementation of the Clean Water Act is the responsibility of the U.S. EPA, which has delegated much of that authority to the U.S. Army Corps of Engineers, as well as state and regional agencies.

The Section 303(d) process of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The 303(d) is updated by the RWQCB and SWRCB biannually. As discussed above, portions of both the Tijuana and Otay rivers are listed as impaired water bodies in the 2010 303(d) List.

b. Federal Emergency Management Agency Flooding Regulations

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 made the purchase of flood insurance mandatory for the protection of property located in Special Flood Hazard Areas (SFHAs). The Federal Emergency Management Agency (FEMA) provides subsidized flood insurance to communities that comply with FEMA regulations. The SFHAs and other risk premium zones applicable to each participating community are depicted on Flood Insurance Rate Maps (FIRMs).

Sections 143.0145 and 143.0146 of the City's Municipal Code contain updated development regulations within SFHAs. As detailed above in Section 5.7.1.4 and shown on Figure 5.7-1, in the northwestern portion of the CPU along the Otay River (the 100-year flood zone) is considered a SFHA.

b. Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal California legal and regulatory framework for water quality control. The Porter-Cologne Water Quality Control Act is embodied in the California Water Code. The California Water Code authorizes the SWRCB to implement the provisions of the federal Clean Water Act. The state of California is divided into nine regions governed by RWQCBs. The RWQCBs implement and enforce provisions of the California Water Code and the Clean Water Act under the oversight of the SWRCB. The City is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of Water Quality Control Plans (Basin Plans) that designate beneficial uses of California's major rivers and groundwater basins and establish water quality objectives for those waters.

c. Water Quality Control Plan for the San Diego Basin

The San Diego Basin encompasses approximately 3,900 square miles, including most of San Diego County and portions of southwestern Riverside and Orange counties. The basin is composed of 11 major HUs, 54 HAs, and 147 Hydrologic Subareas, extending from Laguna Beach southerly to the U.S.-Mexico border. Drainage from higher elevations in the east flows to the west, ultimately into the Pacific Ocean. The RWQCB prepared the Basin Plan, which defines existing and potential beneficial uses and water quality objectives for coastal waters, groundwater, surface waters, imported surface waters, and reclaimed waters in the basin. Water quality objectives seek to protect the most sensitive of the beneficial uses designated for a specific water body. Beneficial uses are defined as: "the uses of water necessary for the survival or well-being of man, plants and wildlife. These uses of water serve to promote the tangible and intangible economic, social and environmental goals of mankind" (RWQCB 2011).

d. California Department of Fish and Wildlife–Streambed Alteration

The CDFW is responsible for protecting, conserving, and managing wildlife, plant, fish, and riparian resources in the state of California. Under Sections 1600–1607 of the CDFW Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. CDFW jurisdictional resources are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. A Streambed Alteration Agreement is required for a project that impacts certain CDFW jurisdictional resources. Such an agreement with CDFW would most likely require mitigation in the form of on-site, off-site, or in-lieu fee mitigation, or combination of all.

e. Storm Water Management and Discharge Control Regulation (San Diego Municipal Code § 43.0301, et seq.)

The purposes of this division of the Municipal Code are to further ensure the health, safety, and general welfare of the citizens of the City of San Diego by controlling non–storm water discharges to the storm water conveyance system; by eliminating discharges to the storm water conveyance system from spills, dumping, or disposal of materials other than storm water; and by reducing pollutants in urban storm water discharges to the maximum extent practicable.

f. Local Drainage Design Manual

Chapter 14, Article 2, Division 2 of the Municipal Code outlines storm water runoff and drainage regulations which apply to all development in the City, regardless of whether or not a development permit or other approval is required. In addition, drainage design policies and procedures are provided in the City's Drainage Design Manual (which is incorporated in the Land Development Manual as Appendix B). The Drainage Design Manual provides a guide for designing drainage and drainage-related facilities for developments within the City. The Drainage Design Manual requires projects to coordinate proposed designs with existing structures and systems handling the same flows to ensure that new projects would not result in any increased runoff or generate increased sediment or pollutants.

g. Storm Water Standards Manual

The City's Storm Water Standards Manual, Appendix O of the City's Land Development Manual, provides information to project applicants on how to comply with the permanent and construction storm water quality requirements contained in the Municipal Storm Water Permit, discussed below. Primary elements of the Storm Water Standards Manual include:

- LID BMPs Requirements;
- Source Control BMPs;
- BMPs Applicable to Individual Priority Development Project Categories; and
- Treatment Control BMPs.

LID BMPs require that an area be dedicated on-site to retain storm water for infiltration, reuse, or evaporation. The Storm Water Standards Manual states:

> For Priority Development Projects [e.g., tentative maps and development permits, construction permits, and public projects that have not begun initial design or that have not been deemed complete prior to a certain date], the feasible portion of the post-project runoff volumes and peak flows from the water quality design storm . . . shall be infiltrated on-site. If it is shown to be infeasible to infiltrate the requisite volume of water, that water may be retained on-site for re-use or evapotranspiration. If it is shown to be infeasible to retain the requisite volume of water, then that water must be treated with treatment control BMPs.

The Storm Water Standards Manual also addresses "Hydromodification – Limitations on Increases of Runoff Discharge Rates and Durations." Hydromodification management requirements dictate design elements in locations where downstream channels are susceptible to erosion from increases in storm water runoff discharge rates and durations.

The Storm Water Standards Manual provides minimum requirements for construction site management, inspection, and maintenance of construction BMPs, monitoring of the weather and implementation of emergency plans as needed, and provides minimum performance standards, including pollution prevention measures so that there would be no measurable increase of pollution (including sediment) in runoff from the site, no slope erosion, water velocity moving off-site would not be greater than pre-construction levels, and natural hydraulic features and riparian buffers must be preserved where possible.

h. General Plan

The City's General Plan presents goals and policies for storm water and drainage infrastructure in the Public Facilities, Services, and Safety Element, and presents goals and policies for open space (including floodplain management) and urban runoff management in the Conservation Element. Relevant General Plan policies are included in Table 5.7-2.

TABLE 5.7-2
GENERAL PLAN POLICIES RELATED TO WATER QUALITY

Policy	Description
PF-G.1	Ensure that all storm water conveyance systems, structures, and maintenance practices are consistent with federal Clean Water Act and California RWQCB NPDES Permit standards.
PF-G.2	Install infrastructure that includes components to capture, minimize, and/or prevent pollutants in urban runoff from reaching receiving waters and potable water supplies.
PF-G.3	Meet and preferably exceed regulatory mandates to protect water quality in a cost-effective manner monitored through performance measures.
PF-G.5	Identify and implement BMPs for projects that repair, replace, extend, or otherwise affect the storm water conveyance system. These projects should also include design considerations for maintenance, inspection, and, as applicable, water quality monitoring.
PF-G.6	Identify partnerships and collaborative efforts to sponsor and coordinate pollution prevention BMPs that benefit storm water infrastructure maintenance and improvements.
CE-B.1	Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities. a. Utilize Environmental Growth Funds and pursue additional funding for the acquisition and management of MHPA and other important community open space lands. b. Support the preservation of rural lands and open spaces throughout the region. c. Protect urban canyons and other important community open spaces including those that have been designated in community plans for the many benefits they offer locally, and regionally as part of a collective citywide open space system (see also Recreation Element, Sections C and F; Urban Design Element, Section A). d. Minimize or avoid impacts to canyons and other environmentally sensitive lands, by relocating sewer infrastructure out of these areas where possible, minimizing construction of new sewer access roads into these areas, and redirecting of sewage discharge away from canyons and other environmentally sensitive lands. e. Encourage the removal of invasive plant species and the planting of native plants near open space preserves. f. Pursue formal dedication of existing and future open space areas throughout the City, especially in core biological resource areas of the City's adopted MSCP Subarea Plan. g. Require sensitive design, construction, relocation, and maintenance of trails to optimize public access and resource conservation.
CE-B.2	Apply the appropriate zoning and Environmentally Sensitive Lands (ESL) regulations to limit development of floodplains, sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands. a. Manage watersheds and regulate floodplains to reduce disruption of natural systems, including the flow of sand to the beaches. Where possible and practical, restore water filtration, flood and erosion control, biodiversity and sand replenishment benefits. b. Limit grading and alterations of steep hillsides, cliffs and shoreline to prevent increased erosion and landform impacts.
CE-B.4	Limit and control runoff, sedimentation, and erosion both during and after construction activity.
CE-E.1	Continue to develop and implement public education programs. a. Involve the public in addressing runoff problems associated with development and raising awareness of how an individual's activities contribute to runoff pollution. b. Work with local businesses and developers to provide information and incentives for the implementation of Best Management Practices for pollution prevention and control.

TABLE 5.7-2
GENERAL PLAN POLICIES RELATED TO WATER QUALITY
(CONTINUED)

Policy	Description
	c. Implement watershed awareness and water quality educational programs for City staff, community planning groups, the general public, and other appropriate groups.
CE-E.2	Apply water quality protection measures to land development projects early in the process-during project design, permitting, construction, and operations-in order to minimize the quantity of runoff generated on-site, the disruption of natural water flows and the contamination of storm water runoff. a. Increase on-site infiltration, and preserve, restore or incorporate natural drainage systems into site design. b. Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales or mechanical trapping devices prior to draining into the MHPA or open space areas. c. Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible. d. Increase the use of vegetation in drainage design. e. Maintain landscape design standards that minimize the use of pesticides and herbicides. f. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where impacts are unavoidable, enforce regulations that minimize their impacts. g. Apply land use, site development, and zoning regulations that limit impacts on, and protect the natural integrity of topography, drainage systems, and water bodies. h. Enforce maintenance requirements in development permit conditions.
CE-E.3	Require contractors to comply with accepted storm water pollution prevention planning practices for all projects. a. Minimize the amount of graded land surface exposed to erosion and enforce erosion control ordinances. b. Continue routine inspection practices to check for proper erosion control methods and housekeeping practices during construction.
CE-E.4	Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.
CE-E.5	Assure that City departments continue to use "Best Practice" procedures so that water quality objectives are routinely implemented. a. Incorporate water quality objectives into existing regular safety inspections. b. Follow Best Management Practices and hold training sessions to ensure that employees are familiar with those practices. c. Educate City employees on sources and impacts of pollutants on urban runoff and actions that can be taken to reduce these sources. d. Ensure that contractors used by the City are aware of and implement urban runoff control programs. e. Serve as an example to the community-at-large.

TABLE 5.7-2
GENERAL PLAN POLICIES RELATED TO WATER QUALITY
(CONTINUED)

Policy	Description
CE-E.6	Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system. a. Promote the provision of used oil recycling and/or hazardous waste recycling facilities and drop-off locations. b. Review plans for new development and redevelopment for connections to the storm drain system. c. Follow up on complaints of illegal discharges and accidental spills to storm drains, waterways, and canyons.
CE-E.7	Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.

SOURCE: City of San Diego General Plan 2008.

i. Applicable Permits

Pursuant to Section 402 of the Clean Water Act, the U.S. EPA has established regulations under the NPDES program to control direct storm water discharges. In California, the SWRCB administers the NPDES permitting programs and is responsible for developing waste discharge requirements. The RWQCB is responsible for developing waste discharge requirements specific to its jurisdiction. General waste discharge requirements that would directly apply to design and construction projects within the CPU area include the SWRCB Construction General Permit, 99-08-DWQ, discussed below, and the City's Municipal Storm Water Permit.

Municipal Storm Water Permit

The Municipal Storm Water NPDES Permit, approved May 8, 2013, by the San Diego RWQCB, requires the City to implement regulations for the oversight of urban runoff and storm water inputs into surface waterways within the San Diego Region. An NPDES permit is a means of assuring that proper measures including BMPs are implemented during all phases of activities that occur within a municipality that can affect urban runoff and storm water quality. The permit is issued in order to establish the conditions under which pollutants would be discharged from the storm drain system to local streams, coastal lagoons, and the ocean, implementing requirements of the Clean Water Act and federal NPDES storm water regulations.

The City is a co-permittee under the Municipal Storm Water Permit. As a co-permittee, the City must implement several storm water management programs, including programs designed to control storm water discharges from new development and redevelopment. Specific sections of the Municipal Storm Water Permit that apply to design and construction include Section E.3, Development Planning Component, and Section E.4, Construction Component. These titles refer to required components of the City's Jurisdictional Urban Runoff Management Program (JURMP), which is one of the programs that must be implemented by the City under the Municipal Storm Water Permit.

The JURMP encompasses City-wide programs and activities designed to prevent and reduce storm water pollution within City boundaries; and includes plans to protect and improve water quality of rivers, bays, and the ocean in the City. The document describes how the City incorporates storm water BMPs into land use planning, development review, and permitting; City capital improvement program project planning and design; and the execution of construction contracts.

Proposed activities in the Tijuana River WMA include sponsored trash cleanups, targeted restaurant and auto-related facility inspections, aggressive street sweeping, municipal rain barrel installation, trash segregation BMP installation, and inlet bacteria treatment BMP installation.

As previously detailed, the City implements storm water control requirements through their JURMP and Storm Water Standards Manual. In addition, Section E of the Municipal Permit, Total Maximum Daily Loads (TMDL), provides requirements for TMDLs and for the maximum amount of a given pollutant such as chemicals, bacteria, or sediment that can be released to a given water body. A TMDL is a "pollution budget" designed to help restore the beneficial uses of an impaired water body. A TMDL defines the maximum amount of a pollutant the water body can safely receive while meeting the water quality objectives identified in the Basin Plan. The City also implements these requirements through their Storm Water Standards Manual, and these requirements would affect design of permanent post-construction BMPs.

Among BMPs employed where the increase in impervious surfaces increases runoff rates and volumes would include:

- Detention basins, effective for very large drainage areas. These are essentially ponds with controlled release rates to minimize downstream effects. Some pollutants can settle during storage and improve the quality of water released. In addition, detention basins reduce the amount of sediment load contained in storm water runoff, prior to releasing stored runoff into adjacent watersheds.

- Infiltration basins, designed to hold runoff and allow percolation into the ground. These basins need adequate storage volume and good permeability of the underlying soils.

- Porous pavement such as lattice pavers or porous asphalt. These may be used to replace large areas of paving that are not subject to heavy traffic.

- Placement of riprap dissipaters and filter blanket material at all storm drain discharge points to reduce flow velocities.

- Vegetative controls, which are plant materials which intercept rainfall and filter pollutants and absorb nutrients.

- Grass swales, which are shallow grass-covered channels used in place of a buried storm drain that filter pollutants.

BMPs would also include nonstructural methods, such as controlling litter and waste disposal practices.

State Water Resources Control Board Construction General Permit, 99-08-DWQ (General Construction Permit)

Under the SWRCB Construction General Permit Order 2009-0009, construction activities that disturb one or more acres of land that could affect hydrologic resources must comply with the requirements of this permit. Applicants for a construction permit would

file a complete and accurate Notice of Intent with the SWRCB. Compliance requires conformance with applicable BMPs and development of a SWPPP. These prevention plans would be required to contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project.

Projects that would be less than one acre in size and not part of a larger common plan of development are not subject to the requirements of the General Construction Permit.

General Industrial Permit

Industrial facilities are subject to "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities" (General Industrial Permit). The General Industrial Permit requires the implementation of storm water management measures and development of a SWPPP for operation of existing industrial facilities and proposed new industrial facilities.

5.7.2 Significance Determination Thresholds

Based on the City's significance thresholds, impacts related to hydrology/water quality would be significant if the CPU would:

1. Result in an increase in impervious surfaces and associated increased runoff, or result in substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes;

2. Result in modifications to the natural drainage system or affect the Otay or Tijuana river valley drainage basins;

3. Result in alterations to the course or flow of flood waters; or

4. Create discharges into surface or ground water, or result in increases in pollutant discharges including downstream sedimentation.

5.7.3 Issue 1: Runoff

Would the CPU result in an increase in impervious surfaces and associated increased runoff? Would the CPU result in a substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?

5.7.3.1 Impacts

a. Increase in Impervious Surfaces

Future development under the CPU would result in an increase in impervious surfaces within the CPU area. An increase in the amount of impervious surface area would potentially increase the amount and rate of runoff and result in an alteration to drainage patterns within the CPU area. As detailed below, all future projects would be required to design and build storm drain systems, including adequate on-site retention facilities to accommodate new development. Future projects also would conform to General Plan and CPU policies and would be required to comply with the City's Storm Water Regulations. The CPU contains goals and policies related to the provision of a reliable system of storm water facilities to serve the existing and future needs of the community. Specifically, the Public Facilities, Services, and Safety Element contains a goal assuring the development of adequate storm water infrastructure as a means to minimize urban runoff and pollution. Policies 6.3-1, 6.3-2, and 6.3-3 implement this goal through the requirement of future projects to use sustainable infrastructure design to capture and control runoff using Drainage Design Standards, encouraging the use of LID design to exceed regulations set forth in the Storm Water Standards, and improving surface and/or subsurface drainage facilities in conjunction with private development projects. Additionally, Policy 6.3-4 requires implementation of the City's Master Storm Water System Maintenance Program to ensure storm water conveyance facilities remain free of invasive plants, sediments or other debris that would reduce their capacity. Policy 6.3-5 supports the goal of minimizing urban runoff by requiring new projects to coordinate with the City Engineer and Storm Water staff to monitor and improve storm water conveyance systems throughout the CPU area.

Policy 3.3-3 of the Mobility Element addresses urban runoff associated with streets. The policy requires the designation of areas within the right-of-way for LID storm water management facilities, such as bioswales, that allow runoff to infiltrate into the ground.

The Urban Design Element of the CPU supports the minimization of storm water runoff. Policy 4.9-5(b) encourages the use of trees with project proposals to slow storm water runoff. Likewise, the Conservation Element of the CPU contains the goal to implement urban runoff management techniques. Policies 8.4-1, 8.4-2, and 8.4-3 promote management of storm water starting at the earliest stages of the development process, and encourage the use of pervious materials in planting areas, driveways, parking areas, and streets.

In addition to the above-referenced policies, all development in the City would be subject to the regulations of the San Diego Municipal Code, which requires that the existing flows of a property proposed for development, be maintained to ensure that the existing structures and systems handling the flows are sufficient. Development that adheres to this basic objective of the existing drainage regulations would not be expected to result

in an increase in runoff. Adherence to the Municipal Storm Water Permit likewise requires implementation of BMPs during construction of future projects. The requirements of the City's Drainage Design Manual and Storm Water Standards Manual, which include installation of LID practices such as bioretention areas, pervious pavements, cisterns, and/or rain barrels, would maintain or improve surface runoff. Furthermore, future development that would adhere to these requirements would likely reduce the volume and rate of surface runoff compared to the existing condition rather than increase runoff.

The quantity of runoff reduction would depend on the actual design of a future project, including open space and pervious areas, and the manner of implementation of LID practices, adherence to regulations and conformance with General Plan, CPU policies, and existing City regulations. Because the amount and rate of runoff is dependent upon future project design, implementation of the CPU could potentially result in significant impacts from increased runoff from impervious surfaces.

b. Alteration to On- and Off-site Drainage

Under the CPU, existing watershed drainage courses within the CPU area would be retained; however, detention basins and increases in channel capacity would be required to accommodate future increases in flow within individual watersheds. Details of potential modifications to the natural drainage system are discussed in Section 5.7.4, below.

As previously described and shown on Figure 5.7-2, drainage flow from the East Watershed collects at a concentration point at a large culvert where it crosses the border with Mexico and flows under the airport access road and General Abelardo L. Rodriguez International Airport runway before flowing into the Tijuana River. This portion of the CPU area is extremely flat, and the adjacent properties cannot effectively drain into the existing small creek channel without raising the elevations of the roads and developments near Otay Mesa Creek.

Drainage and retention facilities would be constructed as part of future development or road improvements within all portions of the CPU area which drain to the Mexico border. However, because the construction of drainage facilities is dependent upon future project design, implementation of the CPU could result in significant impacts associated with alternations to on- and off-site drainage.

5.7.3.2 Significance of Impacts

Buildout in accordance with the CPU would result in an increase in impervious surfaces and associated increased runoff, and result in alterations to on- and off-site drainage. Therefore, implementation of the CPU has the potential to result in significant direct and

indirect impacts associated with runoff and alternations to on- and off-site drainage patterns.

5.7.3.3 Mitigation Framework

HYD/WQ-1: Prior to approval of development projects implemented under the CPU, the applicant shall demonstrate to the satisfaction of the City Engineer, based on the project application, that future projects are sited and designed to minimize impacts on absorption rates, drainage patterns, and surface runoff rates and floodwaters in accordance with current City and RWQCB regulations identified below. Future design of projects shall incorporate feasible mitigation measures outlined below in accordance with the RWQCB, the City Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC), and the LDC, and shall be based on the recommendations of a detailed hydraulic analysis.

a. San Diego RWQCB

- Comply with all NPDES permit(s) requirements, including the development of a SWPPP if the disturbed soil area is one acre or more, or a Water Quality Control Plan if less than one acre, in accordance with the City's Storm Water Standards.

- If a future project includes in-water work, it shall require acquiring and adhering to a 404 Permit (from USACE) and a Streambed Alteration Agreement (from CDFW).

- Comply with the San Diego RWQCB water quality objectives and bacteria TMDL.

b. City of San Diego

- To prevent flooding, future projects shall be designed to incorporate any applicable measures from the City of San Diego LDC. Flood control measures that shall be incorporated into future projects within a SFHA, or within a 100-year floodway, include but are not limited to the following:

- Prior to issuance of building permits or approval of any project within or in the vicinity of a floodway or SFHA, all proposed development within a SFHA is subject to the following requirements and all other applicable requirements and regulations of FEMA and those provided in Chapter 14, Article 3, Division 1 of the LDC.

- In all floodways, any encroachment, including fill, new construction, significant modifications, and other development, is prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge except as allowed under Code of Federal Regulations Title 44, Chapter 1, Part 60.3(c) (13).

- If the engineering analysis shows that development will alter the floodway or floodplain boundaries of the Special Flood Hazard Area, the developer shall obtain a Conditional Letter of Map Revision from FEMA.

- Fill placed in the Special Flood Hazard Area for the purpose of creating a building pad shall be compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Fill method issued by the American Society for Testing and Materials (ASTM) Granular fill slopes shall have adequate protection for a minimum flood water velocity of five feet per second.

- The applicant shall denote on the improvement plans “Subject to Inundation” all areas lower than the base elevation plus two feet.

- If the structures will be elevated on fill such that the lowest adjacent grade is at or above the base flood elevation, the applicant must obtain a Letter of Map Revision based on Fill (LOMR-F) prior to occupancy of the building. The developer or applicant shall provide all documentation, engineering calculations, and fees required by FEMA to process and approve the LOMR-F.

- In accordance with Chapter 14, Article 3, Division 1 of the LDC channelization or other substantial alteration of rivers or streams shall be limited to essential public service projects, flood control projects, or projects where the primary function is the improvement of fish and wildlife habitat. The channel shall be designed to ensure that the following occur:

    - Stream scour is minimized.

    - Erosion protection is provided.

    - Water flow velocities are maintained as specified by the City Engineer.

- There are neither significant increases nor contributions to downstream bank erosion and sedimentation of sensitive biological resources; acceptable techniques to control stream sediment include planting riparian vegetation in and near the stream and detention or retention basins.

- Wildlife habitat and corridors are maintained.

- Groundwater recharge capability is maintained or improved.

- Within the flood fringe of a SFHA or floodway, permanent structures and fill for permanent structures, roads, and other development are allowed only if the following conditions are met:

  - The development or fill shall not significantly adversely affect existing sensitive biological resources on-site or off site.

  - The development is capable of withstanding flooding and does not require or cause the construction of off-site flood protective works including artificial flood channels, revetments, and levees nor shall it cause adverse impacts related to flooding of properties located upstream or downstream, nor shall it increase or expand a FIRM Zone A.

  - Grading and filling are limited to the minim amount necessary to accommodate the proposed development, harm to the environmental values of the floodplain is minimized including peak flow storage capacity, and wetlands hydrology is maintained.

  - The development neither significantly increases nor contributes to downstream bank erosion and sedimentation nor causes an increase in flood flow velocities or volume.

  - There shall be no significant adverse water quality impacts to downstream wetlands, lagoons, or other sensitive biological resources, and the development is in compliance with the requirements and regulations of the NPDES as implemented by the City of San Diego.

5.7.3.4 Significance after Mitigation

Future development implemented in accordance with the CPU would be subject to the requirements of the Storm Water Standards which includes design of new or improved system to meet local and state regulatory requirements satisfactory to the City Engineer.

Strict adherence to the Mitigation Framework which requires regulatory compliance as noted above would ensure that the GP and CPU polices for reducing storm water runoff and potential impacts to downstream resources would be reduced to below a level of significance.

5.7.4 Issue 2: Natural Drainage System

What modifications to the natural drainage system would be required for implementation of the CPU? Would there be an effect on the Otay or Tijuana River Valley drainage basins with implementation of the CPU?

5.7.4.1 Impacts

Criteria in the City of San Diego's 2011 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to altered drainage patterns may result under the following conditions:

- Construction of impervious surfaces (generally one acre or more) adversely affects groundwater recharge capacity in areas utilizing well water;
- A substantial change to stream flow velocities or quantities; and
- Substantial changes in drainage patterns on downstream properties.

If these modifications occur there may be significant impacts on environmental resources such as biological communities and archaeological resources; and a determination by a drainage study that the project would result in adverse impacts on downstream properties or environmental resources.

Most of the CPU area drains to the south across the border with Mexico and eventually into the Tijuana River. The far western part of the CPU area flows to the west through San Ysidro and then into the Tijuana River. A small portion flows north into the Otay River, which ultimately discharges into the San Diego Bay. Buildout in accordance with the CPU would result in modifications to the natural drainage system. The watersheds within the CPU area flow in every direction except east and flow into different watersheds with different constraints and impacts (see Appendix G-2). Therefore, each of the watersheds would require its own set of drainage facilities and improvements.

All future projects implemented in accordance with the CPU would require hydromodification management considerations and would be required to prepare project-level drainage studies to address and ensure compliance with the Storm Water Regulations.

The General Plan also requires the application of water quality protection measures to land development projects early in the process to minimize the disruption of natural

water flows and the contamination of storm water runoff. Likewise, all future projects within the CPU area shall develop adequate drainage facilities and improvements to the satisfactory of the City Engineer.

Development pursuant to the CPU would have the potential to modify the natural drainage system. Therefore, drainage impacts within the CPU area watersheds would be potentially significant.

5.7.4.2 Significance of Impacts

Buildout in accordance with the CPU has the potential to result in a substantial change to stream flow velocities and drainage patterns on downstream properties. Therefore, implementation of the CPU has the potential to result in significant direct and indirect impacts to the natural drainage system.

5.7.4.3 Mitigation Framework

See **HYD/WQ-1** in Section 5.7.3.3, Mitigation Framework, above.

5.7.4.4 Significance after Mitigation

Future development implemented in accordance with the CPU would be subject to the requirements of the Storm Water Standards which includes design of new or improved system to meet local and state regulatory requirements satisfactory to the City Engineer. Strict adherence to the Mitigation Framework which requires regulatory compliance as noted above would ensure that the GP and CPU polices for reducing storm water run-off and potential impacts to natural drainage systems and associated downstream resources would be reduced to below a level of significance.

5.7.5 Issue 3: Flow Alteration

Would the CPU result in alterations to the course or flow of flood waters?

5.7.5.1 Impacts

Criteria in the City of San Diego's 2011 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to altered flow patterns may result under the following conditions:

- A project-related increase in runoff from the site would increase on- or off-site flooding hazards (pursuant to mapped FEMA floodplains and requirements in City Council Policy 600-14, which restrict development within SFHAs).

As shown in Figure 5.7-1, a FEMA 100-year floodplain exists in the northwestern portion of the CPU area near the Otay River. The Otay Mesa Creek, in the East Watershed,

flows from north to south along La Media Road and crosses the border into Mexico just north of the General Abelardo L. Rodriguez International Airport. Though not designated as a FEMA 100-year floodplain, this area is subject to flooding.

Future development along the floodplain would have the potential to increase flooding on- or off-site. All future projects located within the 100-year flood hazard area along Otay Creek, as identified in the CPU drainage study, would be subject to the CPIOZ, which would ensure discretionary review of all future development within this area. Pursuant to Municipal Code Section 143.0145, any future development project must be studied to determine the effects to base flood elevations and ensure they would not result in flooding, erosion, or sedimentation impacts on or off-site. Also, all future projects (both ministerial and discretionary) developed in accordance with the CPU would be required to be designed satisfactory to the City Engineer to contain the 100-year flow and reduce or eliminate flooding impacts to adjacent properties.

However, because project-level detail is unavailable at the program-level, projects under the CPU would have the potential to alter the course or flow of flood waters.

5.7.5.2 Significance of Impacts

Future development within the CPU area would potentially impact the existing course and flow of flood waters, resulting in potentially significant impacts.

5.7.5.3 Mitigation Framework

See **HYD/WQ-1** in Section 5.7.3.3, Mitigation Framework, above.

5.7.5.4 Significance after Mitigation

Although exact flooding impacts from each future project implemented in accordance with the CPU are unknown at this time, it is assumed that future projects associated with altering the course of flood waters under would be reviewed for compliance with the City's Storm Water Standards and conform to all applicable plans and polices, thereby assuring that the design and function of each project would not impact downstream drainage patterns. In addition, implementation of Mitigation Framework HYD/WQ-1 would reduce potential impacts to below a level of significance.

5.7.6 Issue 4: Water Quality

Would the CPU create discharges into surface or ground water, or any alteration of surface or ground water quality, including but not limited to temperature, dissolved oxygen or turbidity? Would there be increases in pollutant discharges including downstream sedimentation?

5.7.6.1 Impacts

Criteria in the City of San Diego's 2011 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to erosion and sedimentation may result if the CPU would:

- Grade, clear, or grub more than one acre of land, especially into slopes over a 25 percent grade and drain into a sensitive water body or stream.
- Result in non-compliance with the City's Water Quality Standards manual and BMP requirements.

Future projects constructed during buildout of the CPU could result in impacts to water quality, including discharges to surface or groundwater. Although specific locations for future projects have not been identified, the construction of such facilities and, to a lesser degree, the operation of these facilities, could impact water quality. Grading and exposed soil could result in sedimentation.

As previously discussed in relation to drainage, the volume of runoff within the CPU area is not expected to increase as a result of future development and may even be slightly reduced through the required implementation of LID design. Furthermore, the pollutants that are listed for water bodies such as San Diego Bay and the Tijuana River would likely be reduced with implementation of storm water BMPs, as existing development in the CPU area may have been constructed before the storm water regulations were adopted. LID practices not only reduce pollution by reducing runoff volume, but also can provide treatment by filtration and microbial action for runoff that would ultimately be discharged through underdrains. Existing development within the CPU area typically does not include any other structural practices to prevent the transport of pollutants off-site, such as trash traps or manufactured filtration devices. Currently, only specific industries subject to the General Industrial Permit may have implemented some storm water management practices to control pollution.

Under current storm water regulations in the City, all projects requiring discretionary approvals are subject to certain minimum storm water requirements. Types of storm water BMPs required for new development include: site design, source control, and treatment control practices, many of which overlap with LID practices. Standard plan check review of future ministerial projects would occur prior to issuance of building permits. Before building permits are issued, documentation of specific storm water BMPs and LID practices are required. The storm water BMPs would reduce the amount of pollutants transported from a future proposed development project to receiving waters.

The General Plan identifies specific policies to limit pollutant discharge to receiving waters and the discharge of identified pollutants to an already impaired water body (see Table 5.7-2). For example, Policy PF-G.3 states, "Meet and preferably exceed

regulatory mandates to protect water quality in a cost-effective manner monitored through performance measures."

Pursuant to the CPU, future use of undeveloped land would consist of residential, industrial, and commercial uses. In addition to these uses the CPU also includes parks, schools, roads, and other public infrastructure. Potential pollutants vary by type of land use and are discussed below.

a. Residential

For residential development, the potential pollutants of concern are sediments, nutrients, trash and debris, oxygen demanding substances, oil and grease, pesticides, and bacteria and viruses.

b. Commercial

For commercial developments, the anticipated pollutants of concern are trash and debris, and oil and grease. The potential pollutants of concern include sediments, nutrients, organic compounds, oxygen demanding substances, pesticides, and bacteria and viruses.

c. Industrial

Industrial operations are known to be a source of heavy metals, oily wastes, and various other substances dependent on the specific industrial operation. Based on Standard Industrial Code and storm water exposure, industrial facilities would be subject to the General Industrial Storm Water Permit and are required to prepare a SWPPP.

d. Parks, Schools, Roads, and Other Public Infrastructure

Proposed parks, schools, roads, and other public infrastructure within the CPU area would contribute any of the pollutants identified within the residential, commercial, and industrial land uses. Future development of these facilities would be required to implement appropriate BMPs as identified above.

5.7.6.2 Significance of Impacts

Adherence to federal, state, and local regulations, would serve to reduce significant impacts to a degree, but cannot guarantee that all future project-level impacts would be avoided or mitigated to below a level of significance. Therefore, impacts associated with water quality would be significant at the program-level.

5.7.6.3 Mitigation Framework

The discussion below summarizes general measures that shall be implemented to preclude impacts. These measures shall be updated, expanded, and refined when applied to specific future projects based on project-specific design and changes in existing conditions; as well as changes to local, state, and federal laws.

HYD/WQ-2:

Future projects shall be sited and designed to minimize impacts on receiving waters, in particular the discharge of identified pollutants to an already impaired water body. Prior to approval of any entitlements for any future project, the City shall ensure that any impacts on receiving waters shall be precluded and, if necessary, mitigated in accordance with the requirements of the City's Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC) and other appropriate agencies (e.g., RWQCB). To prevent erosion, siltation, and transport of urban pollutants, all future projects shall be designed to incorporate any applicable storm water improvement, both off- and on-site, in accordance with the City of San Diego Stormwater Standards Manual.

Storm water improvements and water quality protection measures that shall be required of future projects include:

- Increasing onsite filtration;
- Preserving, restoring, or incorporating natural drainage systems into site design;
- Directing concentrated flows away from MHPA and open space areas. If not possible, drainage shall be directed into sediment basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas;
- Reducing the amount of impervious surfaces through selection of materials, site planning, and narrowing of street widths where possible;
- Increasing the use of vegetation in drainage design;
- Maintaining landscape design standards that minimize the use of pesticides and herbicides; and
- To the extent feasible, avoiding development of areas particularly susceptible to erosion and sediment loss.

San Diego Regional Water Quality Control Board and Municipal Code Compliance

- The requirements of the RWQCB for storm water quality are addressed by the City in accordance with the City NPDES requirements and the participation in the regional permit with the RWQCB.

- Prior to permit approval, the City shall ensure any impacts on receiving waters are precluded or mitigated in accordance with the City of San Diego Stormwater Regulations.

- In accordance with the City of San Diego Stormwater Standards Manual, development shall be designed to incorporate on-site storm water improvements satisfactory to the City Engineer and shall be based on the adequacy of downstream storm water conveyance.

5.7.6.4 Significance after Mitigation

Future development implemented in accordance with the CPU would be subject to the requirements of the Storm Water Standards which includes design of new or improved system to meet local and state regulatory requirements satisfactory to the City Engineer. Strict adherence to the Mitigation Framework detailed in HYD/WQ-2 which requires regulatory compliance as noted above would ensure that the GP and CPU polices for reducing storm water run-off and potential impacts related to discharges into surface or ground water, alterations to surface or groundwater, increases in pollutant discharges (erosion) and downstream sedimentation would be reduced to below a level of significance.